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Adobe Photoshop

USER MANUAL

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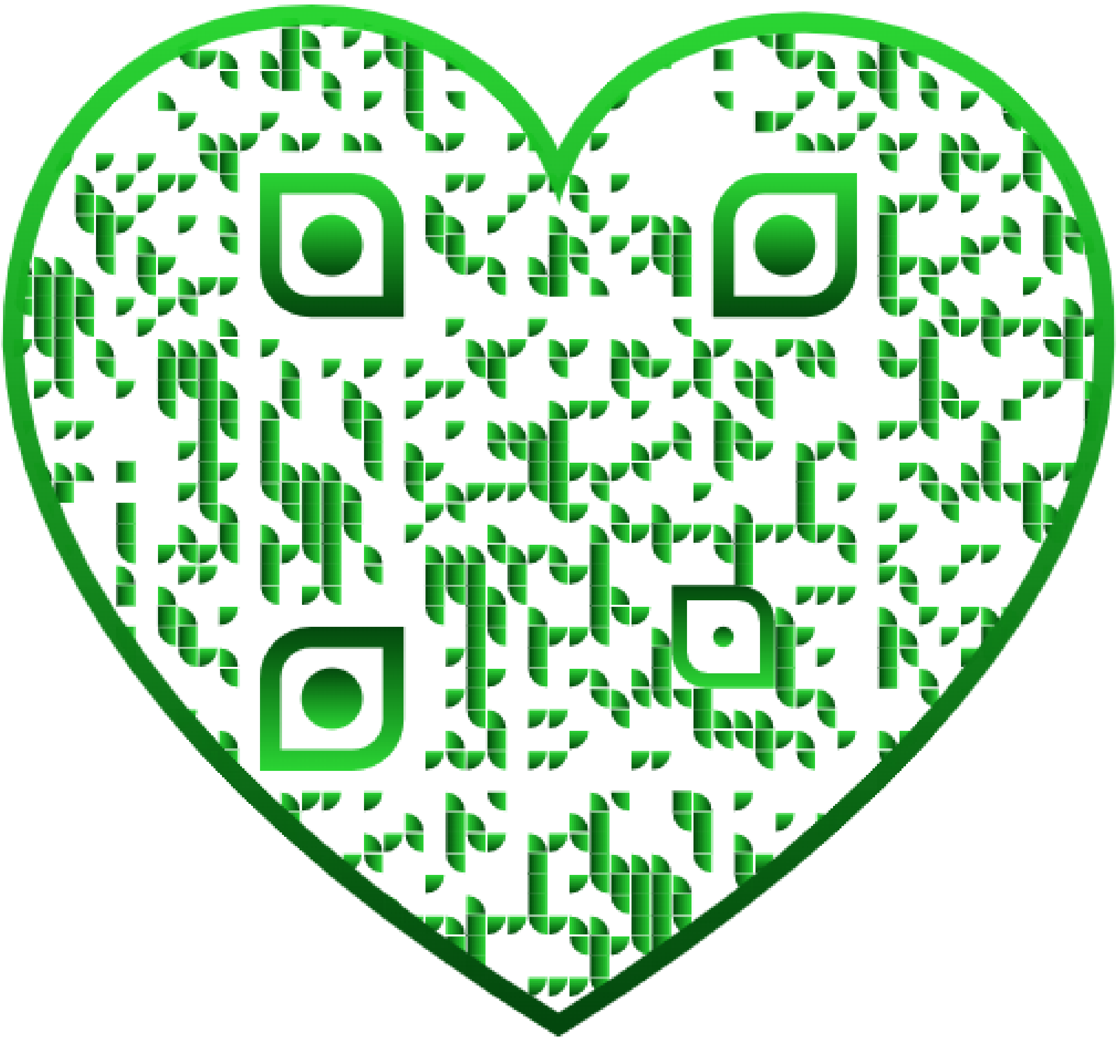

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Papercut's

Adobe Photoshop

USER MANUAL

If you can imagine it, you can make it a reality in Photoshop

This powerful software is your one-stop destination for all your photo editing and image manipulation needs. Whether you are new to Photoshop or looking to expand your skills, this essential manual is packed with fully illustrated, step-by-step tutorials, guides and tips to help you along the way. So jump in and immerse yourself in Adobe Photoshop, and learn how to master the professional techniques and create amazing images. It's all in The Adobe Photoshop User Manual!

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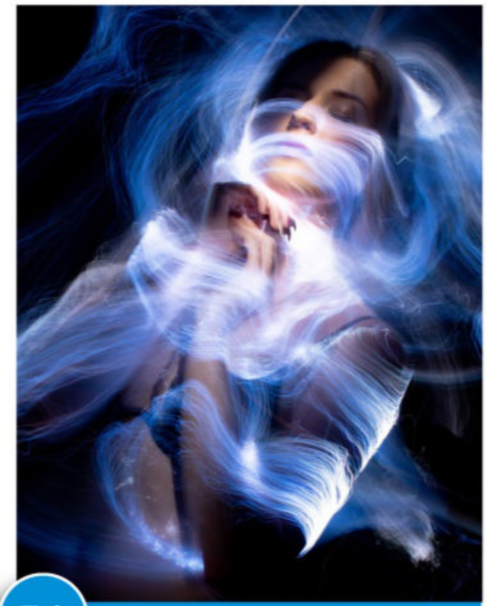

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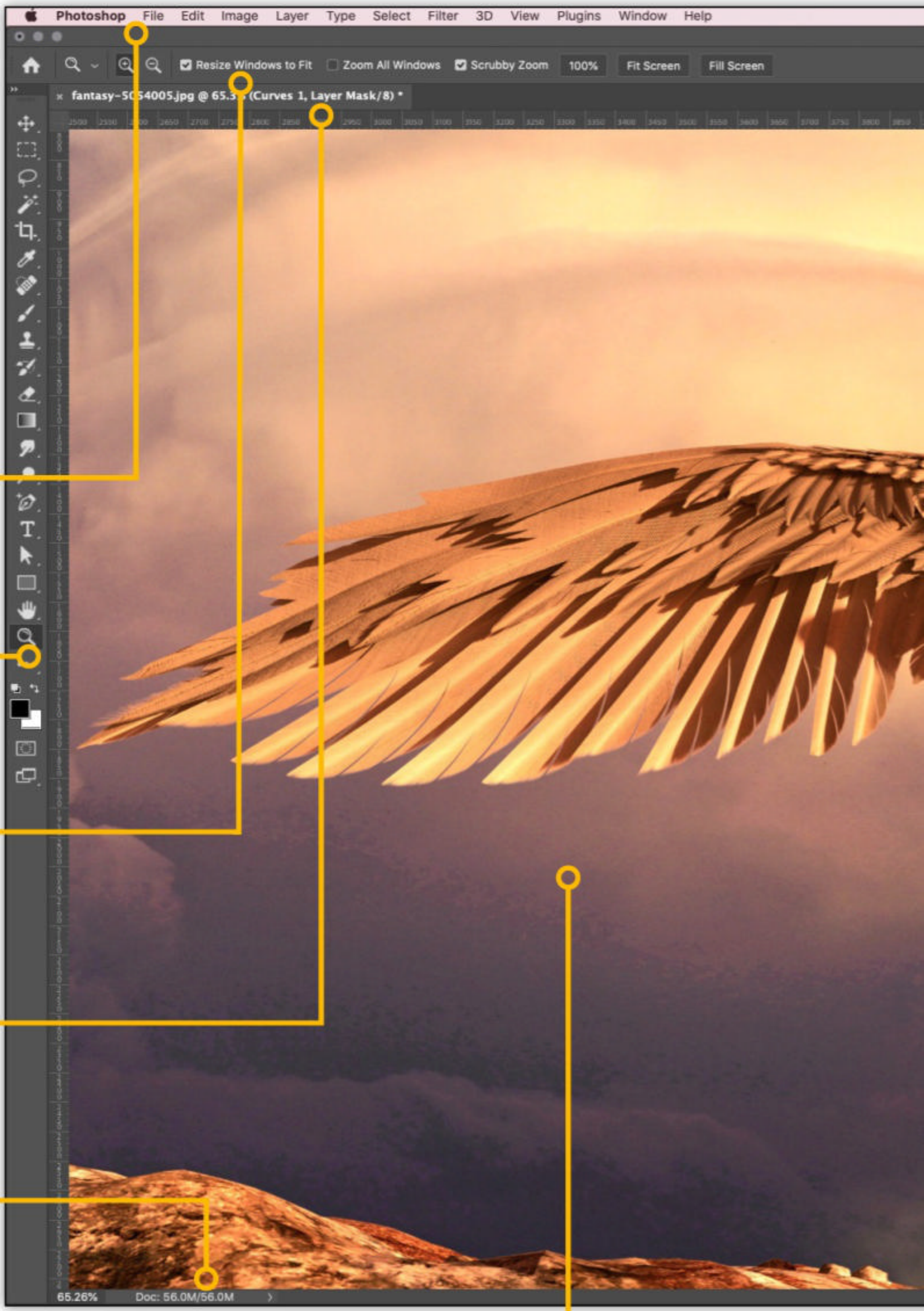
Welcome to Adobe Photoshop

Over the years, Adobe has continually refined and honed the tools available in Photoshop, but at its heart, the basics have always remained the same. You can simply crop a photo, create a complex and multi-layered artwork or anything in between. Let’s take a look at what Photoshop is all about.

Main Interface

This is Photoshop's graphic user front end

Photoshop has a great interface, with a dark slate grey work area, slightly lighter menu and palette bars and sharp white text. It looks great and really makes photos stand out from the background. Let's see what it has to offer.


Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
☑ Resize Windows to Fit
☐ Zoom All Windows
☑ Scrubby Zoom
100%
Fit Screen
Fill Screen
fantasy-5 54005.jpg @ 65.3 (Curves 1, Layer Mask/8) *
65.26%
Doc: 56.0M/56.0M

Menu Bar

You'll find all the menu options here and many more nested menus to control all aspects of Photoshop. Read on for more details.

Tool Palette

Here you'll find your main editing tools. The following pages look at the individual tools and what you can do with them.

Tool Option Bar

For each tool on the palette there are options, such as brush size or softness. You'll find them in this area.

Document Window

Each window you open will have its own tab to identify it. It includes the document name, current scaling and colour space being used.

Document Details

Here you'll find the compressed and real size of your document. You can also call up other information such as document pixel dimensions.

Active Image

The new interface provides a larger area to work on your images, with a darker background colour.

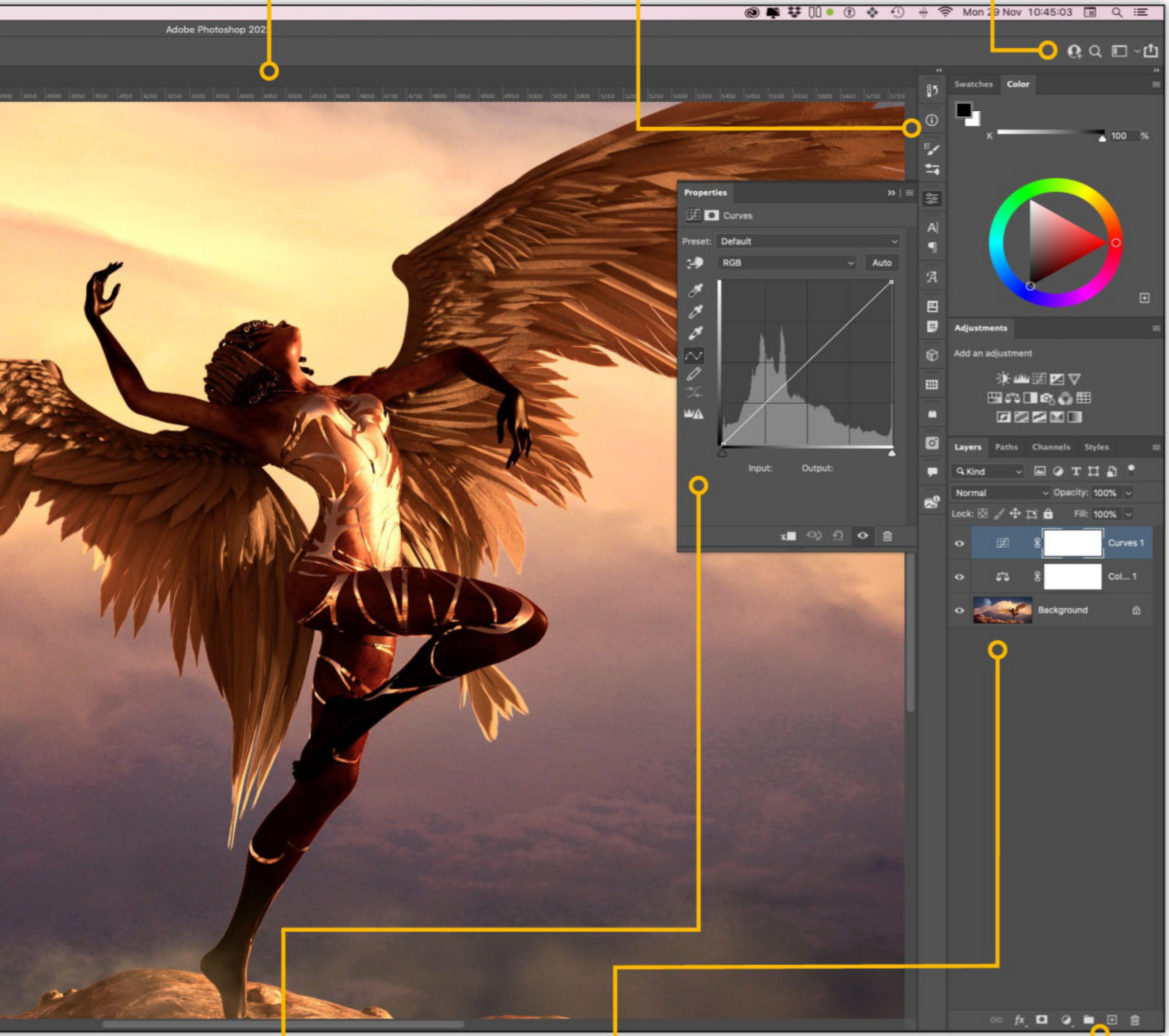
USEFUL TIP

You can set up your own workspaces to reflect the way you work and save them so that you can quickly switch from one to another.

Rulers
Use these to accurately measure positions on your image and drag guidelines from here to help line up text and layers.

Palettes
There are a number of interchangeable palettes available, which you can choose from the Window menu.

Workspace Option
Choose between preset workspace arrangements, including 3D workspaces, zoom and Share for Commenting.



Adobe Photoshop 202
Mon 29 Nov 10:45:03
Properties
Curves
Preset: Default
RGB
Auto
Input:
Output:
Swatches
Color
K
100 %
Adjustments
Add an adjustment
Layers
Paths
Channels
Styles
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Curves 1
Col... 1
Background

Fly-out Palettes
You can set up your own custom list of frequently used palettes and access them by clicking on these buttons.

Layer Palette
Here you'll find the layers of the image you're currently working on. Layers at the top of the stack will appear above those below.

Layer Options
Here you can add effects, layer styles, adjustments and other options to your currently active layers.

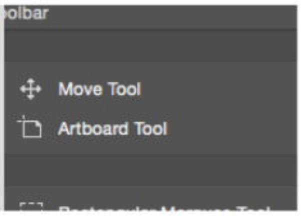
The Toolbar

Let's take a look at Photoshop's main editing tools

The main elements of the Photoshop Toolbar haven't changed all that much since the introduction of Layers and the Move Tool with version 3.0, back in 1994. The shape has changed a bit, elongating into a single column to take advantage of today's larger monitors and a few more tools have been added, but anyone who's familiar with any previous version of Photoshop will soon feel right at home.

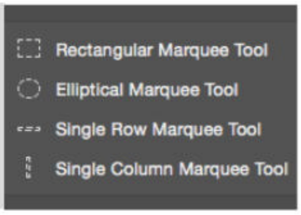
Move

Used to move pixel information on the active layer or selection. You can also create multiple layouts using the Artboard feature.


Move Tool
Artboard Tool

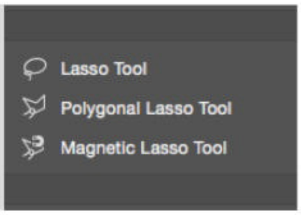
Marquee

The Marquee is used to select an area of the active layer. Alternative options include an elliptical shape and single row or column selections.


Rectangular Marquee Tool
Elliptical Marquee Tool
Single Row Marquee Tool
Single Column Marquee Tool

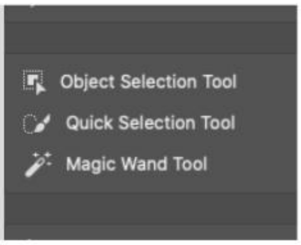
Lasso

The Lasso is also used to make area selections from the active layer by clicking or drawing a line around the area to be selected.


Lasso Tool
Polygonal Lasso Tool
Magnetic Lasso Tool

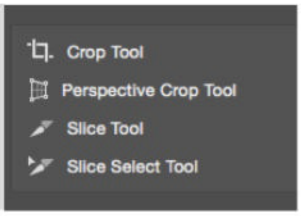
Magic Wand

This tool can select an area based on its colour. The alternative option is Quick Selection, or the newly updated Object Selection Tool that scans the image automatically.


Object Selection Tool
Quick Selection Tool
Magic Wand Tool

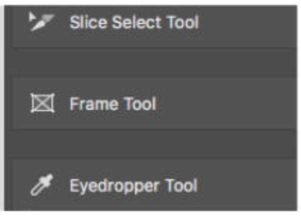
Crop

The Crop Tool has seen a major overhauls in the past, but it still does the same job. Use it to select one area of an image and discard the rest.


Crop Tool
Perspective Crop Tool
Slice Tool
Slice Select Tool

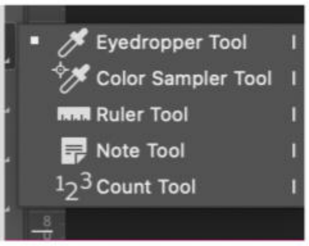
Frame Tool

The Frame Tool can be used to create placeholder frames for images. You can create any kind of shape and drop an image into it.


Slice Select Tool
Frame Tool
Eyedropper Tool

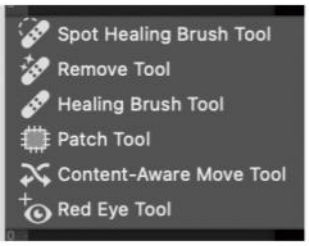
Eyedropper

The Eyedropper and its extensive list of alternatives provide you with tools that can tell you more about the image you're working on, such as colour values, sizes and object count.


Eyedropper Tool
Color Sampler Tool
Ruler Tool
Note Tool
Count Tool

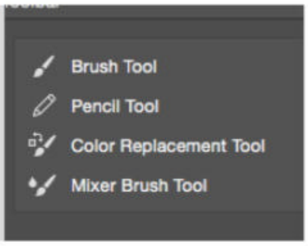
Spot Healing

Another tool that has seen some changes in the latest version, the Spot Healing Tool is for removing small blemishes such as stray hairs or dust spots from your images.


Spot Healing Brush Tool
Remove Tool
Healing Brush Tool
Patch Tool
Content-Aware Move Tool
Red Eye Tool

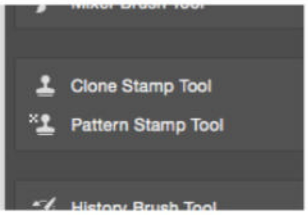
Brush

This is a basic but useful tool for all types of image editing, painting and drawing. Alternatives include the equally useful Pencil Tool, as well as colour replacement and mixing.


Brush Tool
Pencil Tool
Color Replacement Tool
Mixer Brush Tool

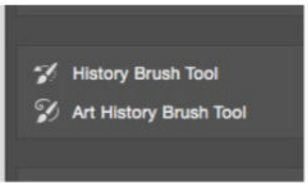
Clone Stamp

Clone Stamp is used to copy one area of an image onto another. It can remove any unwanted element in your image.


Clone Stamp Tool
Pattern Stamp Tool

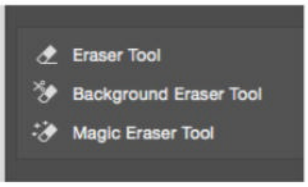
History Brush

The History Brush can be used to selectively restore certain areas of an image to a previous state.


History Brush Tool
Art History Brush Tool

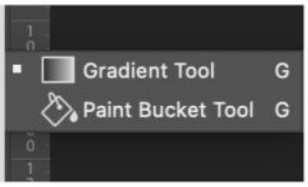
Eraser

As the name implies, the Eraser Tool is a special brush that can delete an area of an image, layer or selection.


Eraser Tool
Background Eraser Tool
Magic Eraser Tool

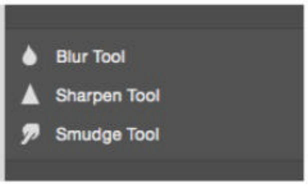
Gradient

The Gradient Tool can apply a fill-in to an area that fades gradually from one colour to another.


Gradient Tool G
Paint Bucket Tool G

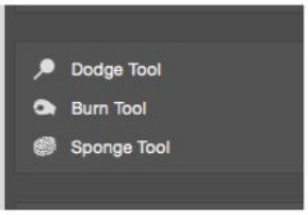
Smudge

The Smudge Tool and its options, can be used to blend and alter colours and details in the image.


Blur Tool
Sharpen Tool
Smudge Tool

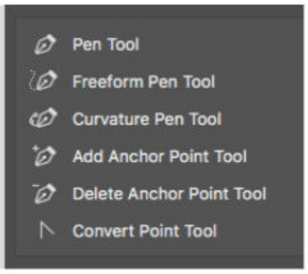
Burn

Burn and its alternatives Dodge and Sponge, are based on photographic darkroom techniques and are used to selectively lighten, darken images.


Dodge Tool
Burn Tool
Sponge Tool

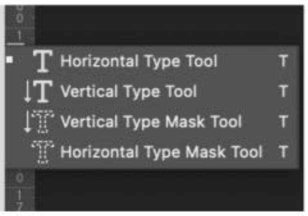
Pen

The Pen Tool is used to draw smooth curves for lines or selections, using something called Bezier curves. They can produce great results.


Pen Tool
Freeform Pen Tool
Curvature Pen Tool
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool

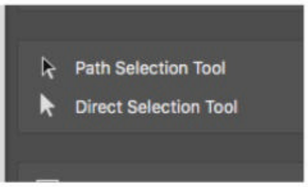
Type

The Type Tool is another area that has continued to receive various updates and overhauls and is now part of a powerful text system.


Horizontal Type Tool T
Vertical Type Tool T
Vertical Type Mask Tool T
Horizontal Type Mask Tool T

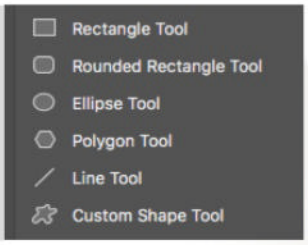
Path Selection

Paths are used for many purposes in Photoshop. Use this tool and its alternative to select a path to use.


Path Selection Tool
Direct Selection Tool

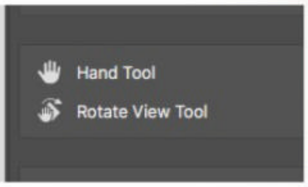
Line

The Line Tool and its alternatives are used to create shapes and paths on your images. It is very useful for graphics work and adding arrows and custom shapes.


Rectangle Tool
Rounded Rectangle Tool
Ellipse Tool
Polygon Tool
Line Tool
Custom Shape Tool

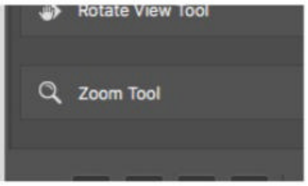
Hand

The Hand Tool is used to navigate around a large image. It is most often used via the space bar.


Hand Tool
Rotate View Tool

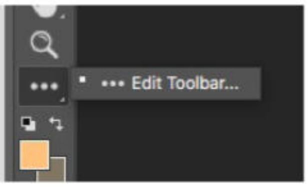
Zoom

This zooms in to an area of the image. Again it is most often used via a shortcut, in this case CTRL + or CTRL -.


Rotate View Tool
Zoom Tool

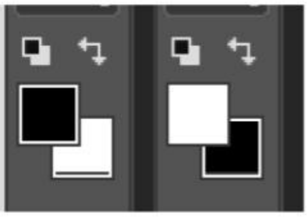
Edit Toolbar

This tool enables you to customise your toolbar to add or remove tools to your specific requirements.


Edit Toolbar...

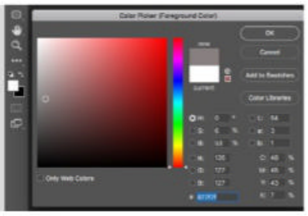
Switch Colour

Clicking on the first icon sets the colours to their defaults. The other swaps the background and foreground colours over.



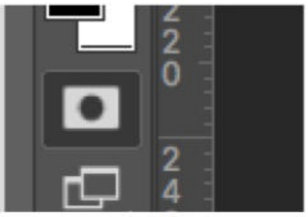
Set Colour

Clicking here brings up the colour chooser palette, which lets you choose the foreground or background colours.



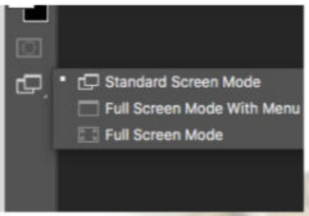
Quick Mask

The Quick Mask mode is a great way of making complex selections using the drawing and painting tools.



Screen Mode

Click here to switch between the current screen mode and a full-screen view of your current image.


Standard Screen Mode
Full Screen Mode With Menu
Full Screen Mode

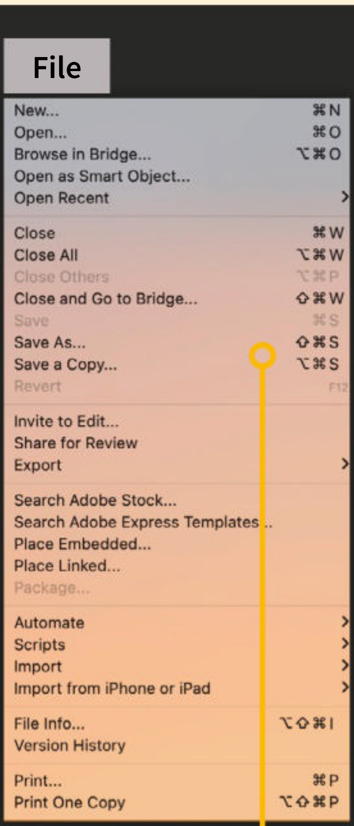
USEFUL TIP

Most of the tools in the toolbar have alternative options, denoted by the small arrow below and right of the icon. Click and hold on the icon to see the pop-up alternative menu. This diagram shows the alternative menus for each tool. You can move the toolbar around by dragging the border at the top, or switch back to the old two-column look by clicking the double arrow.

Menus

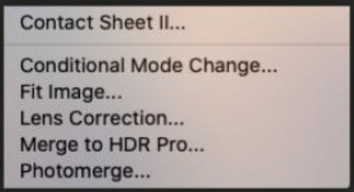
One look at the menus and you begin to understand Photoshop's complexity and versatility

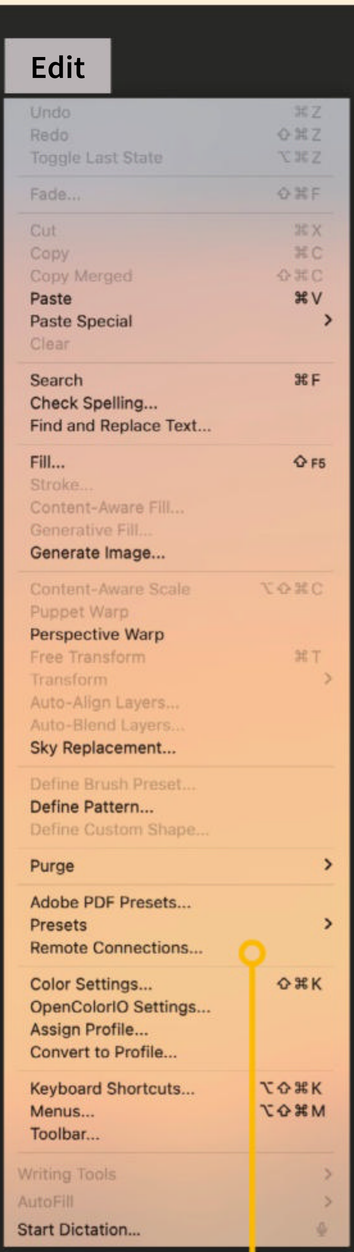
The main interface of Photoshop has no fewer than twelve menus and a Help option, each with many options and with many additional nested sub-menus. It's vital to become familiar with the contents of the most important ones, because once you know where to look for everything you'll be able to work more quickly, efficiently and confidently. Let's take a look at some of the key menu listings.


File
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close Others ⌥⌘P
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Save a Copy... ⌥⌘S
Revert F12
Invite to Edit...
Share for Review
Export
Search Adobe Stock...
Search Adobe Express Templates...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
Import from iPhone or iPad
File Info... ⌥⇧⌘I
Version History
Print... ⌘P
Print One Copy ⌥⇧⌘P

File

The most important options here are New… to create a new document, Open… to open your file, Save to save your current project in its default file format and location and Save As… which gives you the option to save in a different format or location and to change the file name. Also in the File menu are the important Automate and Scripts sub-menus, which provide advanced batch processing and automated editing options.


Contact Sheet II...
Conditional Mode Change...
Fit Image...
Lens Correction...
Merge to HDR Pro...
Photomerge...


Edit
Undo ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Generative Fill...
Generate Image...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...
Auto-Blend Layers...
Sky Replacement...
Define Brush Preset...
Define Pattern...
Define Custom Shape...
Purge
Adobe PDF Presets...
Presets
Remote Connections...
Color Settings... ⇧⌘K
OpenColorIO Settings...
Assign Profile...
Convert to Profile...
Keyboard Shortcuts... ⌥⇧⌘K
Menus... ⌥⇧⌘M
Toolbar...
Writing Tools
AutoFill
Start Dictation...

Edit

The Edit menu has many features you'll find familiar including Copy, Paste and Cut functions. You'll also find the useful features Fill, Stroke, Content-aware Scale as well as AI Image Generation.

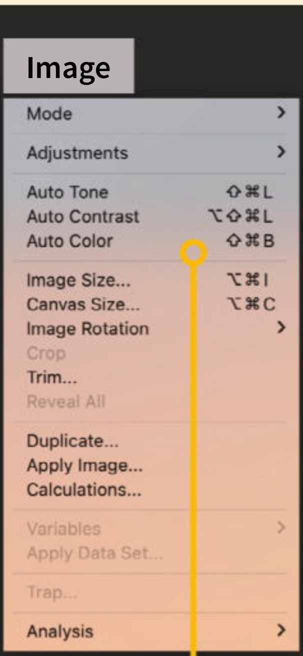
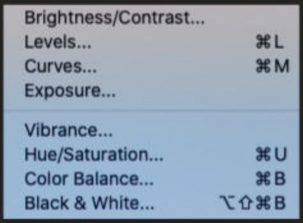
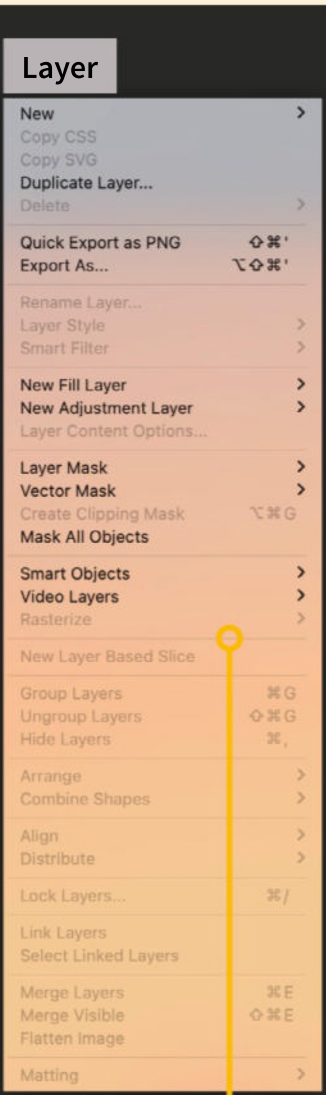


Image
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis

Image

The Image menu is where you come to make changes to the whole image, including Mode (colour type), Image Size, Canvas Size and Image Rotation, but the most important thing you'll find here is the Adjustments sub-menu, which Adobe could probably have made into a separate main menu in its own right. Under Adjustments you'll find all your main image controls, such as Brightness/Contrast, Levels, Curves, Hue/Saturation and many more. You'll find many of these duplicated on the Adjustment Layer palette.

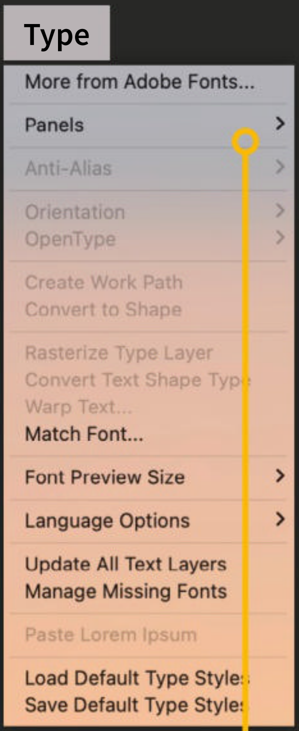

Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B


Layer
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Vector Mask
Create Clipping Mask ⌥⌘G
Mask All Objects
Smart Objects
Video Layers
Rasterize
New Layer Based Slice
Group Layers ⌘G
Ungroup Layers ⇧⌘G
Hide Layers ⌘,
Arrange
Combine Shapes
Align
Distribute
Lock Layers... ⌘/
Link Layers
Select Linked Layers
Merge Layers ⌘E
Merge Visible ⇧⌘E
Flatten Image
Matting

Layer

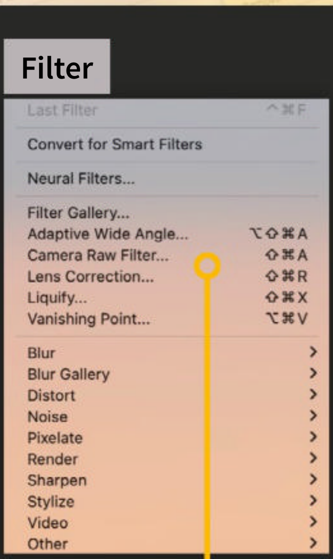
Layers are a vital feature of Photoshop. The most important options here though are New, which lets you create and name a new layer and New Adjustment Layer, which adds a non-destructive editing layer to your image. The Merge and Flatten options can also be found here along with Mask and Slice options.

menus 32.psd
Copy
Copy Merged
Paste
Paste Special
Clear
Search
Check Spelling...
Find and Replace Text...
Fill...
Stroke...
Content-Aware Fill...
Content-Aware Scale
Puppet Warp
Perspective Warp
Free Transform
Transform
Auto-Align Layers...
Auto-Blend Layers...
Sky Replacement...
Define Brush Preset...
Define Pattern...
Define Custom Shape...
Again
Scale
Rotate
Skew
Distort
Perspective
Warp
Split Warp Horizontally
Split Warp Vertically
Split Warp Crosswise
Remove Warp Split


Type
More from Adobe Fonts...
Panels
Anti-Alias
Orientation
OpenType
Create Work Path
Convert to Shape
Rasterize Type Layer
Convert Text Shape Type
Warp Text...
Match Font...
Font Preview Size
Language Options
Update All Text Layers
Manage Missing Fonts
Paste Lorem Ipsum
Load Default Type Styles
Save Default Type Styles

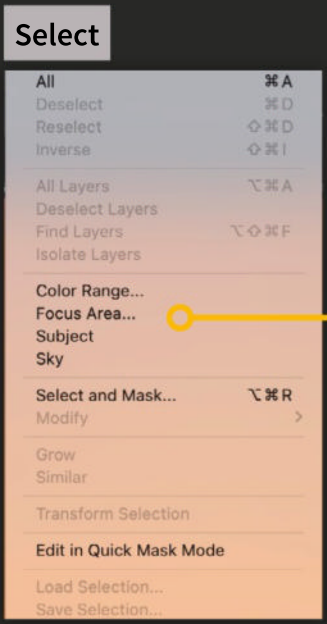
Type

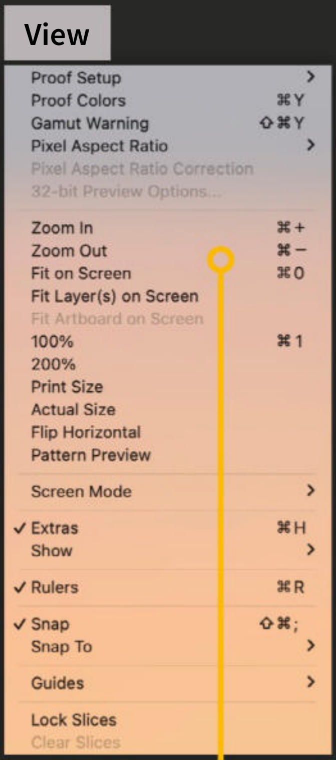
The latest version of Photoshop includes many new text presentation and handling options. Most of these can be found in the fly-out Character and Paragraph panels on the right of the screen or the Panels option. Others can be found here, including warping and special foreign language options and glyphs.


Filter
Last Filter ^⌘F
Convert for Smart Filters
Neural Filters...
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other

Filter

Photoshop has always been popular for its range of filter effects and it's been updated with a more powerful Camera Raw Filter [2.0 at time of writing] and also Neural Filters that offer AI fixes for Portraits, Color amd Creative styles.


Select
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Sky
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...

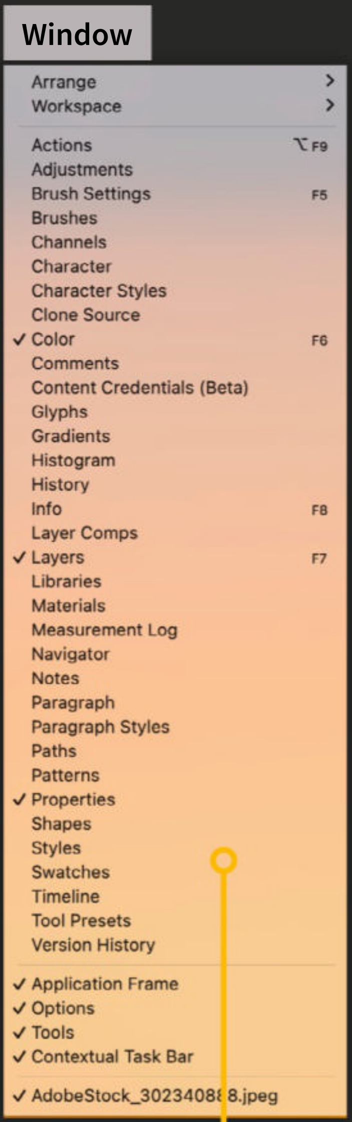

View
Proof Setup
Proof Colors ⌘Y
Gamut Warning ⇧⌘Y
Pixel Aspect Ratio
Pixel Aspect Ratio Correction
32-bit Preview Options...
Zoom In ⌘+
Zoom Out ⌘−
Fit on Screen ⌘0
Fit Layer(s) on Screen
Fit Artboard on Screen
100% ⌘1
200%
Print Size
Actual Size
Flip Horizontal
Pattern Preview
Screen Mode
✓ Extras ⌘H
Show
✓ Rulers ⌘R
✓ Snap ⇧⌘;
Snap To
Guides
Lock Slices
Clear Slices

View

The View menu is home to the basic viewing controls such as zoom level, but again you'll want to control those using shortcuts to save time. You'll also find the very useful controls for the Snap functions, including guide lines, essential when you're laying out a more complex design or composing text on an image.

Select

The Select menu contains the main tools that let you control any or all selections that are currently active within your current document. Whether you've got the Lasso Tool active, Quick Selection or Magic Wand, you can modify and transform those selections here. You can also select all your layers or just items in selected layers.


Window
Arrange
Workspace
Actions ⌥F9
Adjustments
Brush Settings F5
Brushes
Channels
Character
Character Styles
Clone Source
✓ Color F6
Comments
Content Credentials (Beta)
Glyphs
Gradients
Histogram
History
Info F8
Layer Comps
✓ Layers F7
Libraries
Materials
Measurement Log
Navigator
Notes
Paragraph
Paragraph Styles
Paths
Patterns
✓ Properties
Shapes
Styles
Swatches
Timeline
Tool Presets
Version History
✓ Application Frame
✓ Options
✓ Tools
✓ Contextual Task Bar
✓ AdobeStock_302340888.jpeg

Window

This isn't a menu you'll be using constantly, but it does hold some very useful features, such as the Arrange and Workspace sub-menus, which allow you to control the layout of tabs, windows and the various tool palettes and panels.

Keyboard Shortcuts

There's always a quicker way of doing almost everything in Photoshop

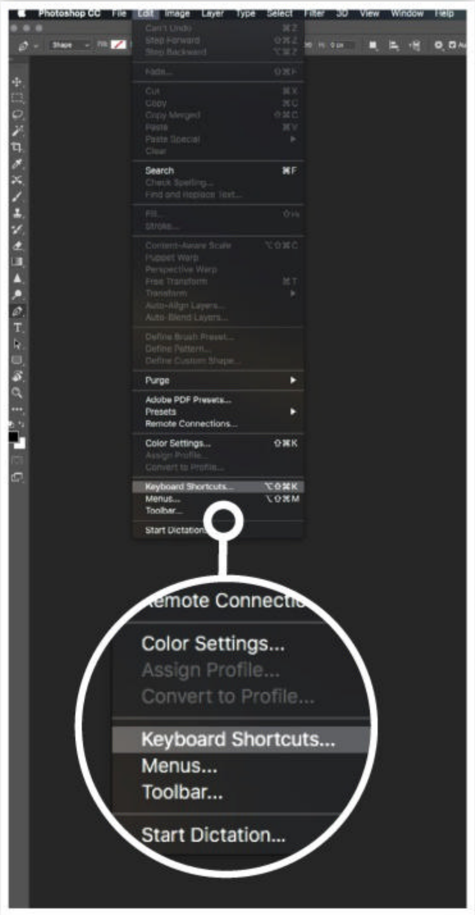
USEFUL TIP

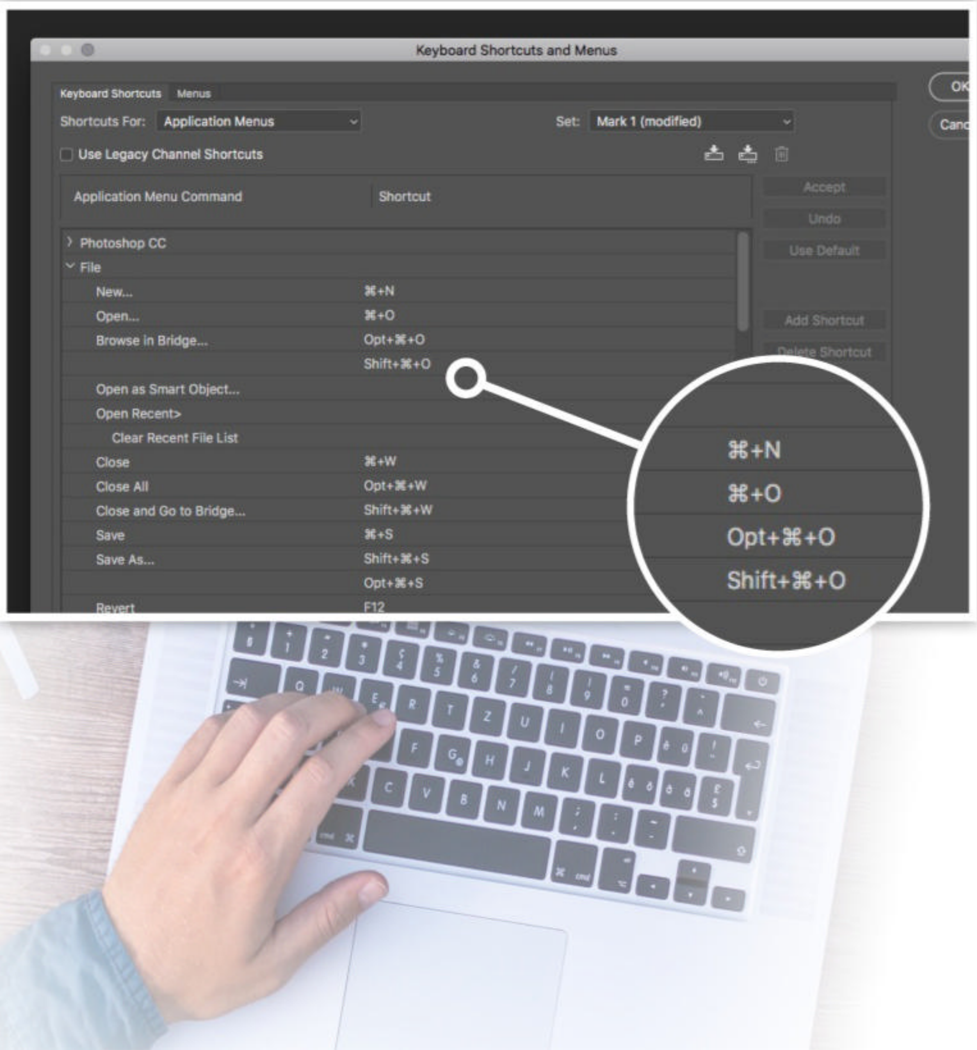
Learning the keyboard shortcuts will speed up your editing and you can also set up your own in the Edit menu. Just be aware of creating 'shortcut collisions' where a custom shortcut is the same as a current default one.

One of Photoshop's best features is its huge list of fully customisable keyboard shortcuts. Almost all of the program's functions can be accessed quickly by pressing various combinations of keys and once you learn those shortcuts your workflow will speed up immensely. You can even make up your own for your most frequently-used operations.

Customising Shortcuts

You'll find the Keyboard Shortcut preferences menu at the bottom of the Edit menu, although naturally it has its own keyboard shortcut, Alt+Shift+Ctrl+K. You'll find an exhaustive list of all Photoshop functions, broken down into category headings matching the names of the main menus. You'll find that many operations already have their own default shortcuts. You can easily change these, or even add your own new ones. To apply a shortcut to an operation, first locate it in the list and then click in the space to the right of the name. You'll see a small text window appear and the next key or combination of keys that you press will appear here. If the combination is already used by another shortcut you'll see a notification warning you of this and asking if you want to proceed with the change. If you click Accept the new shortcut will be applied immediately. Take care when making your own shortcuts that you don't accidentally overwrite some useful defaults.


Photoshop CC
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Search ⌘F
Purge
Adobe PDF Presets...
Presets
Remote Connections...
Color Settings... ⇧⌘K
Assign Profile...
Convert to Profile...
Keyboard Shortcuts... ⌥⇧⌘K
Menus... ⌥⇧⌘M
Toolbar...
Start Dictation...


Keyboard Shortcuts and Menus
Keyboard Shortcuts
Menus
OK
Cancel
Accept
Undo
Use Default
Add Shortcut
Delete Shortcut

Shortcuts For: Application Menus

Set: Mark 1 (modified)

☐ Use Legacy Channel Shortcuts

Application Menu Command	Shortcut
› Photoshop CC	
⌄ File	
New...	⌘+N
Open...	⌘+O
Browse in Bridge...	Opt+⌘+O
	Shift+⌘+O
Open as Smart Object...	
Open Recent>	
Clear Recent File List	
Close	⌘+W
Close All	Opt+⌘+W
Close and Go to Bridge...	Shift+⌘+W
Save	⌘+S
Save As...	Shift+⌘+S
	Opt+⌘+S
Revert	F12

Some Useful Default Shortcuts

Here are some of the more commonly-used shortcuts for image editing. There are many more of course, but it's worth taking the time to memorise these ones. You'll work efficiently and they'll make your life a whole lot easier.

CREATE NEW DOCUMENT
control + N

CREATE NEW LAYER
shift + control + N

CLOSE CURRENT DOCUMENT
control + W

CLOSE ALL DOCUMENTS
alt + control + W

SAVE CURRENT DOCUMENT
control + S

SAVE AS
control + shift + S

UNDO LAST STEP
control + Z

TOGGLE LAST STATE
alt + control + Z

REDO LAST STEP
shift + control + Z

LEVELS
control + L

CURVES
control + M

INCREASE BRUSH SIZE
}]

DECREASE BRUSH SIZE
{ [

BRING CURRENT LAYER TO TOP
shift + control + }]

MOVE CURRENT LAYER UP
control + }]

MOVE CURRENT LAYER DOWN
control + { [

INVERT SELECTION
shift + control + I

ZOOM IN VIEW
control + + =

ZOOM OUT VIEW
control + — _

FIT ON SCREEN
control +) 0

100% ZOOM
alt + control +) 0

SHOW RULERS
control + R

SHOW OR HIDE GRID
control + " '

SHOW OR HIDE GUIDES
control + : ;

PASTE FROM CLIPBOARD
control + V

COPY TO CLIPBOARD
control + C

CUT TO CLIPBOARD
control + X

FREE TRANSFORM
control + T

TURN SNAP ON OR OFF
shift + control + : ;

SELECT ALL ON CURRENT LAYER
control + A

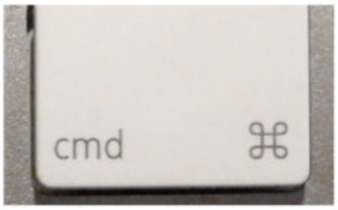
DESELECT ALL
control + D

HELP
F1

Important Note

On a PC the Ctrl key for your shortcuts looks like this on a standard Windows keyboard. If you use a PC and you see an instruction in this title to use a Cmd key, then just use Ctrl instead.

On a Mac computer the Ctrl key is replaced by the Cmd key on a standard Mac keyboard. If you use a Mac and you see an instruction in this title to use the Ctrl key, just use your Cmd key instead.

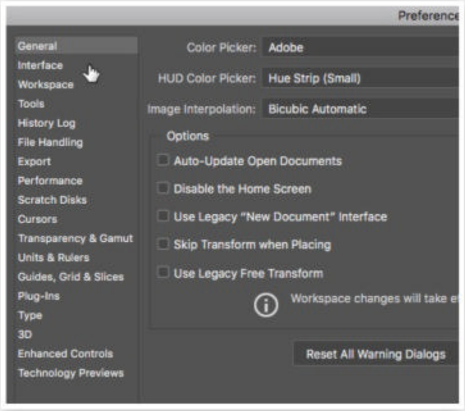


Photoshop Preferences Guide

Here are all the preferences and what they do

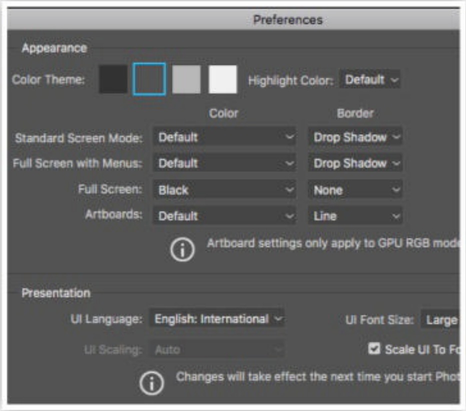
Photoshop is nothing if not customisable. You can shape and adjust the user interface to suit your own needs and make it a very personalised, and customised, workspace. Not only can you choose what appears in the main toolbar, you can also arrange and group the various windows and features entirely to your preference. That accounts for the items you interact with on the screen, however there are also a number of options you can tweak to adjust various 'under the hood' settings, as it were, too. Photoshop has a listing of all its Preferences both general and specific, so we thought we'd share the salient points with you here.

BEFORE
AFTER



Color Picker: Adobe
HUD Color Picker: Hue Strip (Small)
Image Interpolation: Bicubic Automatic
Options
☐ Auto-Update Open Documents
☐ Disable the Home Screen
☐ Use Legacy "New Document" Interface
☐ Skip Transform when Placing
☐ Use Legacy Free Transform
Workspace changes will take e

01 Under Photoshop 2025 > Settings > General (Cmd + K) you will see the list of preferences available. The General preferences provide you with options to use some legacy features from older versions of Photoshop, Clipboard options, Smart Object creation and more.



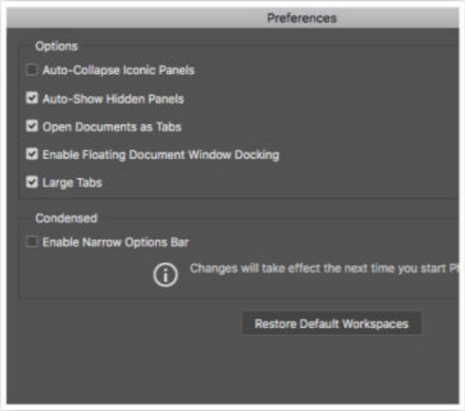
Appearance
Color Theme: Highlight Color: Default

	Color	Border
Standard Screen Mode:	Default	Drop Shadow
Full Screen with Menus:	Default	Drop Shadow
Full Screen:	Black	None
Artboards:	Default	Line

Artboard settings only apply to GPU RGB mod

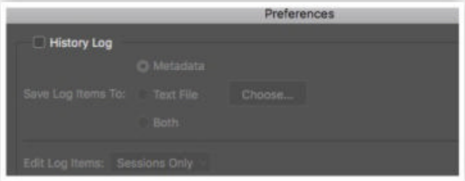
Presentation
UI Language: English: International UI Font Size: Large
UI Scaling: Auto ☑ Scale UI To F
Changes will take effect the next time you start Phot

02 The next preference option is Interface. This is one you are likely to access more than most. This section primarily concerns itself with the appearance of your workspace. The main Colour Theme and the various colours employed by the screen modes are set here.

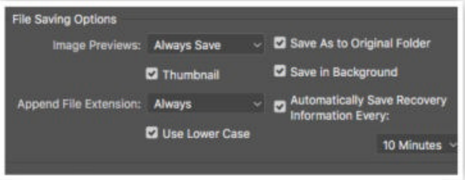


Options
☐ Auto-Collapse Iconic Panels
☑ Auto-Show Hidden Panels
☑ Open Documents as Tabs
☑ Enable Floating Document Window Docking
☑ Large Tabs
Condensed
☐ Enable Narrow Options Bar
Changes will take effect the next time you start P

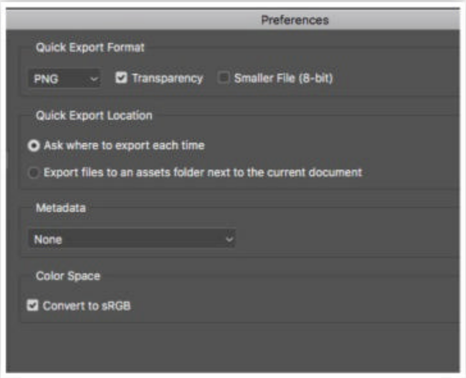
03 The Workspace preferences are fairly simple and let you Auto-Show or Auto-Collapse panels as required without the need to manually open their properties. The Tools section below that allows the use of Tooltips and panning and zooming options can be turned on or off here.



☐ History Log
○ Metadata
Save Log Items To: ○ Text File
○ Both
Edit Log Items: Sessions Only

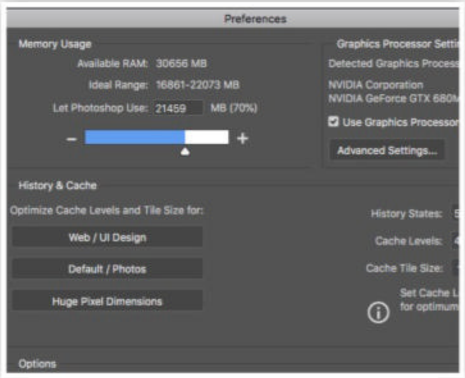

File Saving Options
Image Previews: Always Save ☑ Save As to Original Folder
☑ Thumbnail ☑ Save in Background
Append File Extension: Always ☑ Automatically Save Recovery Information Every:
☑ Use Lower Case 10 Minutes

04 History Log lets track your actions in each Photoshop session and then save them out as a text file. File Handling offers a set of options to control the use of Image Previews and File Extensions. You can also adjust the File Compatibility options such as layered Tiff files.



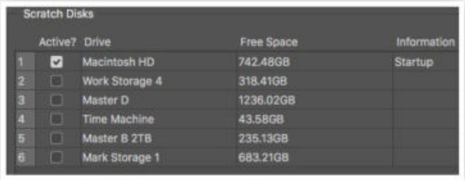
Quick Export Format
PNG ☑ Transparency ☐ Smaller File (8-bit)
Quick Export Location
● Ask where to export each time
○ Export files to an assets folder next to the current document
Metadata
None
Color Space
☑ Convert to sRGB

05 Export contains a few options that govern what format your images are if you choose to use the Quick Export function. You can also decide on a Quick Export Location, choose if any Metadata is appended to the image format and what Colour Space the image will be.

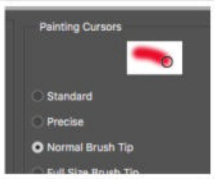


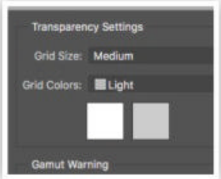
Memory Usage
Available RAM: 30656 MB
Ideal Range: 16861-22073 MB
Let Photoshop Use: 21459 MB (70%)
Graphics Processor Setti
Detected Graphics Process
NVIDIA Corporation
NVIDIA GeForce GTX 680
☑ Use Graphics Processor
History & Cache
Optimize Cache Levels and Tile Size for:
History States:
Cache Levels:
Cache Tile Size:
Set Cache L for optimum
Options

06 Performance is a key area in which to spend some time as it will greatly speed up your work if set up correctly. Here you can control how much RAM Photoshop uses and, if your graphics card is compatible, to allow the use of advanced Graphics Processor Settings.

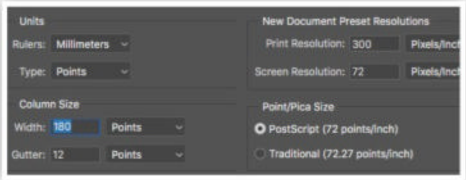

Scratch Disks

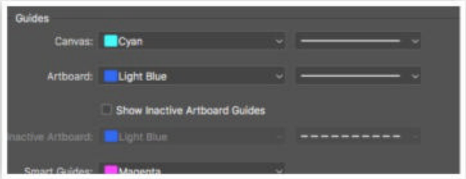
	Active?	Drive	Free Space	Information
1	☑	Macintosh HD	742.48GB	Startup
2	☐	Work Storage 4	318.41GB	
3	☐	Master D	1236.02GB	
4	☐	Time Machine	43.58GB	
5	☐	Master B 2TB	235.13GB	
6	☐	Mark Storage 1	683.21GB	


Painting Cursors
○ Standard
○ Precise
● Normal Brush Tip
Full Size Brush Tip

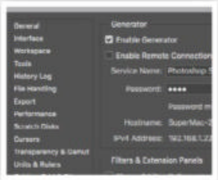

Transparency Settings
Grid Size: Medium
Grid Colors: Light
Gamut Warning

07 Scratch Disks lets you use hard drive storage as virtual RAM, whilst Cursors lets you specify the precision, size and shape of the Brush Tip. Transparency and Gamut govern the transparent, background grid size and in what colour a Gamut warning will appear.

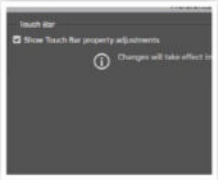

Units
Rulers: Millimeters
Type: Points
New Document Preset Resolutions
Print Resolution: 300 Pixels/Inch
Screen Resolution: 72 Pixels/Inch
Column Size
Width: 180 Points
Gutter: 12 Points
Point/Pica Size
● PostScript (72 points/inch)
○ Traditional (72.27 points/inch)

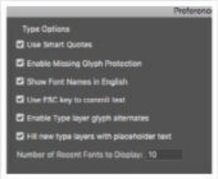

Guides
Canvas: Cyan
Artboard: Light Blue
☐ Show Inactive Artboard Guides
Inactive Artboard: Light Blue
Smart Guides: Magenta

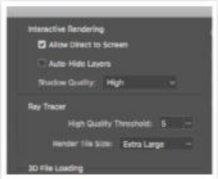
08 Units & Rulers is fairly self-explanatory with options for in which units of measurement your Rulers and Type sizes appear. Grids, Grid & Slices is a useful set of options when you need precise grids added to your document in terms of colour and grid line frequency.



Generator
☑ Enable Generator
☐ Enable Remote Connection
Service Name: Photoshop
Password: ••••
Hostname: SuperMac
IPv4 Address:


Touch Bar
☑ Show Touch Bar property adjustments
Changes will take effect in


Type Options
☑ Use Smart Quotes
☑ Enable Missing Glyph Protection
☑ Show Font Names in English
☑ Use ESC key to commit text
☑ Enable Type layer glyph alternates
☑ Fill new type layers with placeholder text
Number of Recent Fonts to Display: 10

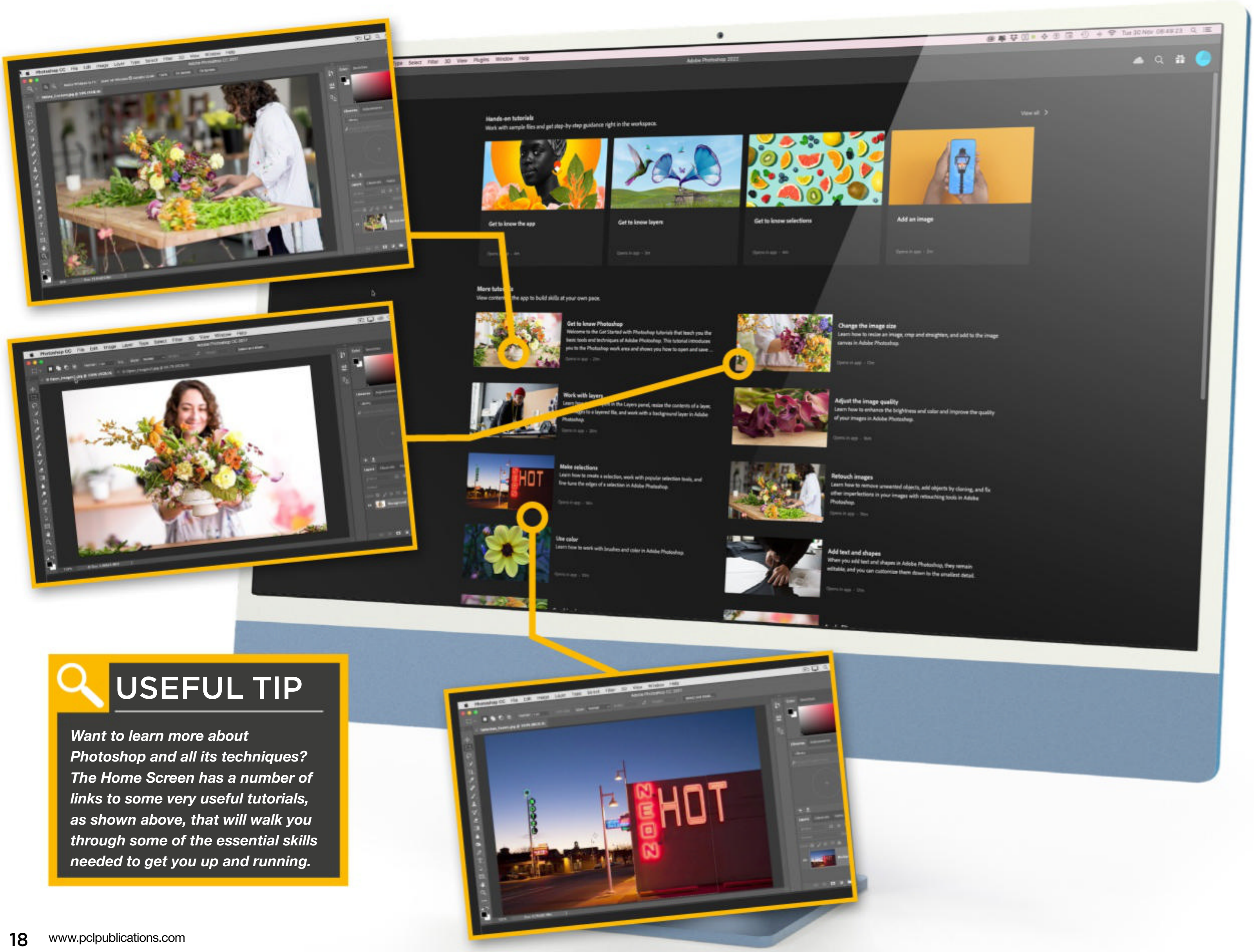

Interactive Rendering
☑ Allow Direct to Screen
☑ Auto-Hide Layers
Shadow Quality: High
Ray Tracer
High Quality Threshold: 5
Render Tile Size: Extra Large
3D File Loading

09 You can control the use of Plug-Ins and Type Options in the next two preference sections. Then there is the 3D section where you can set VRAM usage, 3D Overlays and Interactive Rendering. Enhanced Controls for Touch Bar and Technology Previews round out the list.

The Photoshop Home Screen

We show you what the Photoshop user front end has on offer in the latest versions

In the good old days of Photoshop CS, you had a product that you opened up and simply started using with nothing else getting in the way. These days that is no longer the case. The Adobe Creative Cloud series of apps now offer user interactive front-end environments that are more than just a list of recently opened files. Now you can browse and sort those files and display them in thumbnail or list form. That's not all, you also have access to Adobe's online web tutorials covering every topic you can think of. From basic videos on getting started with layers and cutting out images, to more advanced topics, you have a library of knowledge at your beck and call. Even creating a new document has a huge wealth of choice for every creative need.


Adobe Photoshop 2022
Hands-on tutorials
Work with sample files and get step-by-step guidance right in the workspace.
View all
Get to know the app
Get to know layers
Get to know selections
Add an image
More tutorials
View content in the app to build skills at your own pace.

Get to know Photoshop
Welcome to the Get Started with Photoshop tutorials that teach you the basic tools and techniques of Adobe Photoshop. This tutorial introduces you to the Photoshop work area and shows you how to open and save ...

Change the image size
Learn how to resize an image, crop and straighten, and add to the image canvas in Adobe Photoshop.

Work with layers
[illegible] in the Layers panel, resize the contents of a layer, [illegible] to a layered file, and work with a background layer in Adobe Photoshop.

Adjust the image quality
Learn how to enhance the brightness and color and improve the quality of your images in Adobe Photoshop.

Make selections
Learn how to create a selection, work with popular selection tools, and fine-tune the edges of a selection in Adobe Photoshop.

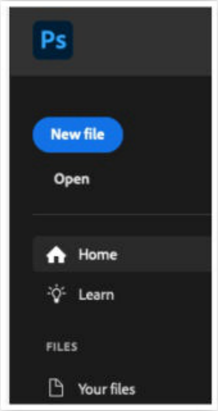
Retouch images
Learn how to remove unwanted objects, add objects by cloning, and fix other imperfections in your images with retouching tools in Adobe Photoshop.

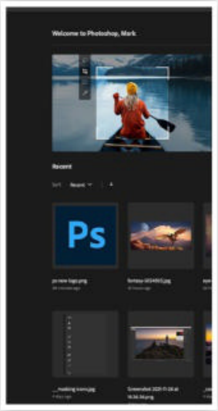
Use color
Learn how to work with brushes and color in Adobe Photoshop.

Add text and shapes
When you add text and shapes in Adobe Photoshop, they remain editable, and you can customize them down to the smallest detail.

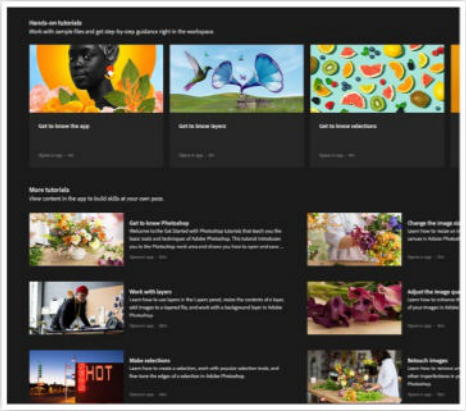
USEFUL TIP

Want to learn more about Photoshop and all its techniques? The Home Screen has a number of links to some very useful tutorials, as shown above, that will walk you through some of the essential skills needed to get you up and running.

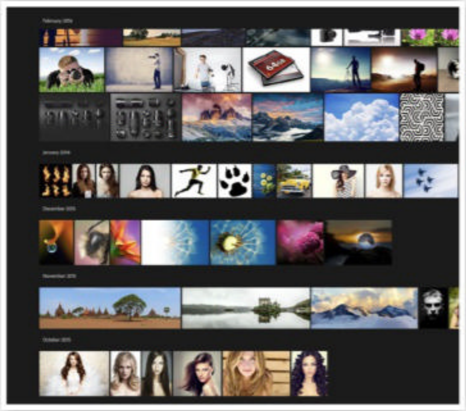

Ps
New file
Open
Home
Learn
FILES
Your files


Welcome to Photoshop, Mark
Recent
Ps

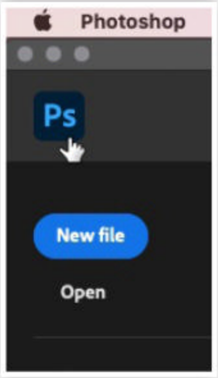
01 When you open Photoshop, rather than just going direct to the workspace, you are first presented with the Adobe Photoshop Home screen. The main part of the window concerns itself with the display of your Recent files in ascending or descending order.

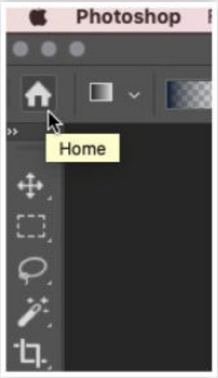

Hands-on tutorials
More tutorials

02 In the top left of the screen you can click on the menu items. Home is active by default, but you can click on the Learn button to display a page of available tutorials from which you can choose. At the bottom, there is the option to go to Adobe.com for even more.

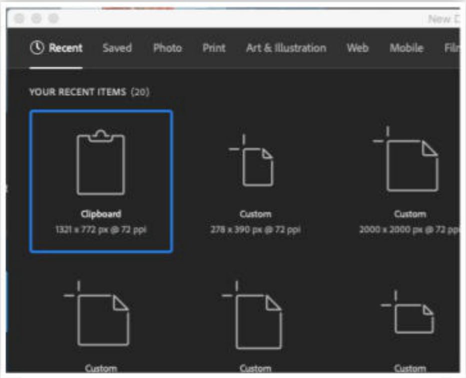


03 Below the Learn option is LR Photos. When you click on this option, it displays a page of your Lightroom images that are stored online. View them and choose which ones you would like to select for import. They will then download and open in Photoshop.

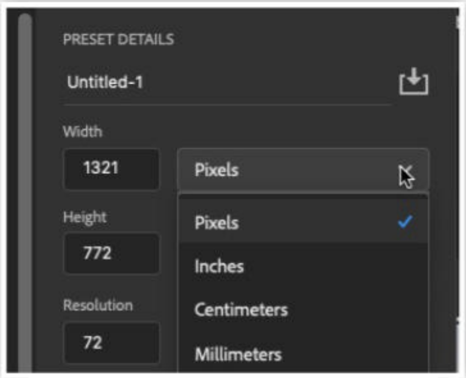

Photoshop
Ps
New file
Open


Photoshop
Home

04 For your reference, in the top left corner is the PS icon. If you click on that, it will open the Photoshop workspace, but no images will be opened. You can start your workflow if needs be, or you can click on the Home button to return to the Home screen once more.

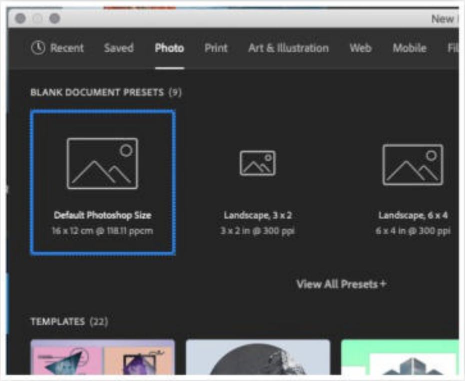

Recent
Saved
Photo
Print
Art & Illustration
Web
Mobile
YOUR RECENT ITEMS (20)
Clipboard
1321 x 772 px @ 72 ppi
Custom
278 x 390 px @ 72 ppi
Custom
2000 x 2000 px @ 72 ppi
Custom
Custom
Custom

05 The next option on the left of the Home screen is Create New. When you click on this button the New Document screen will appear. The first screen will list Recent items and the document sizes available will reflect image sizes you've used in the past.

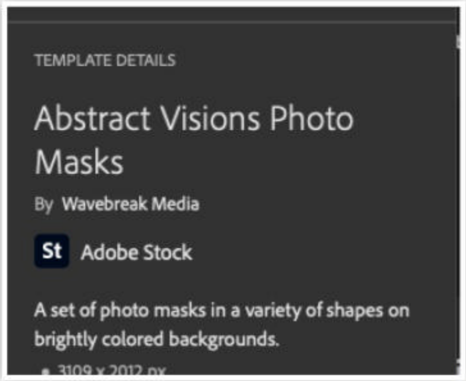

PRESET DETAILS
Pixels
Pixels
Inches
Centimeters
Millimeters

Untitled-1
Width 1321
Height 772
Resolution 72

06 You can input your own dimensions in the Width and Height fields and choose a unit of measurement for your new document. You can select the Orientation, Resolution, Color Mode and even Pixel Aspect Ratio. Then click Create to open the document and start working.

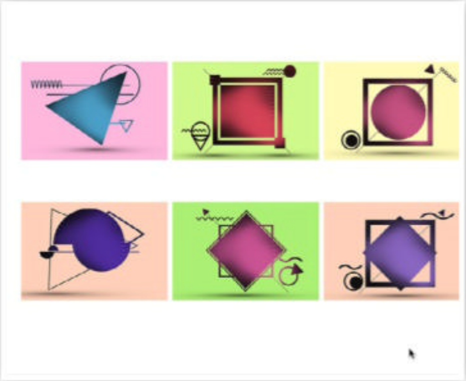

Recent
Saved
Photo
Print
Art & Illustration
Web
Mobile
BLANK DOCUMENT PRESETS (9)
Default Photoshop Size
16 x 12 cm @ 118.11 ppcm
Landscape, 3 x 2
3 x 2 in @ 300 ppi
Landscape, 6 x 4
6 x 4 in @ 300 ppi
View All Presets +
TEMPLATES (22)

07 Across the top of the New Document window, you will see a number of Blank Document Presets from which you can choose. First is any you have saved yourself, then there are the Photo presets. These are a range of standard photo print sizes such as 7 x 5 in @ 300ppi.


TEMPLATE DETAILS
St Adobe Stock

Abstract Visions Photo Masks
By Wavebreak Media
A set of photo masks in a variety of shapes on brightly colored backgrounds.
3109 x 2012 px

08 Below the Presets are a number of masking Templates, provided free by Adobe, for you to use. They range from Gallery Frames to Collage Layouts. When you click on any of the templates, you will see a set of details listed to the right of the New Document window.

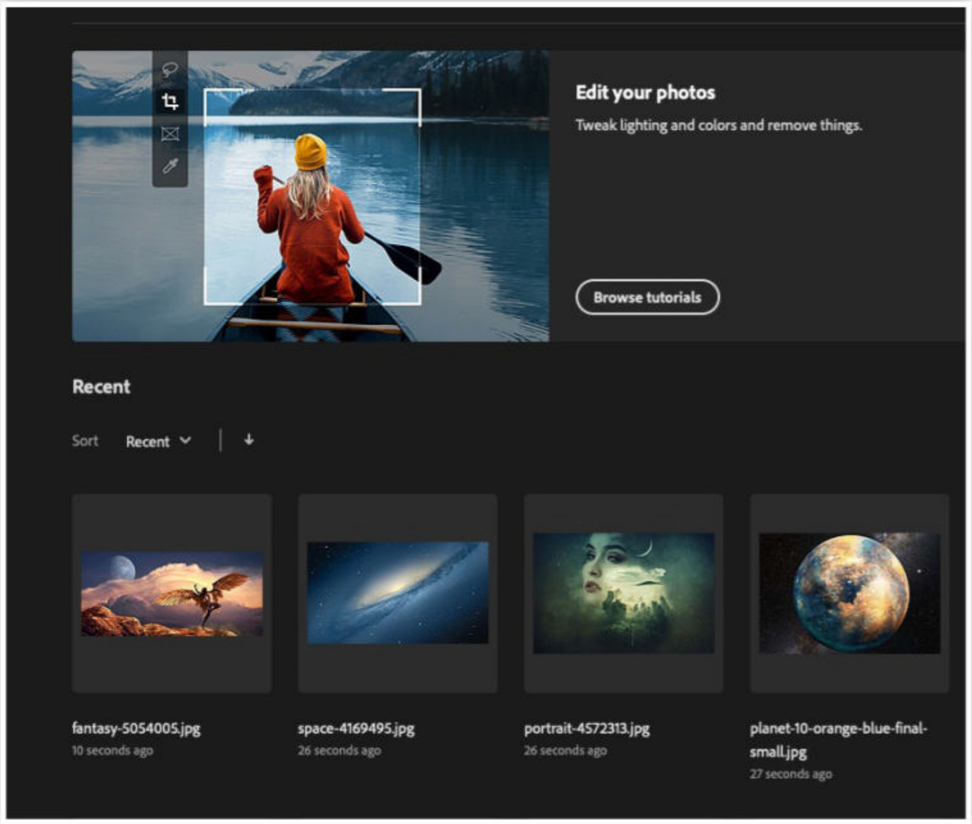


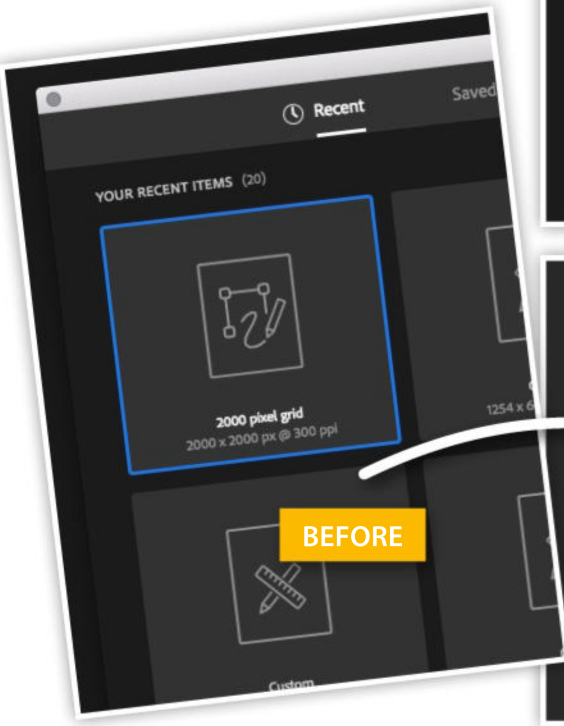
09 If you click the See Preview button, you can look at the templates in more detail prior to deciding if you want to download it or not. There are also Presets and making Templates for Print, Art & Illustration, Web, Mobile and Film & Video.

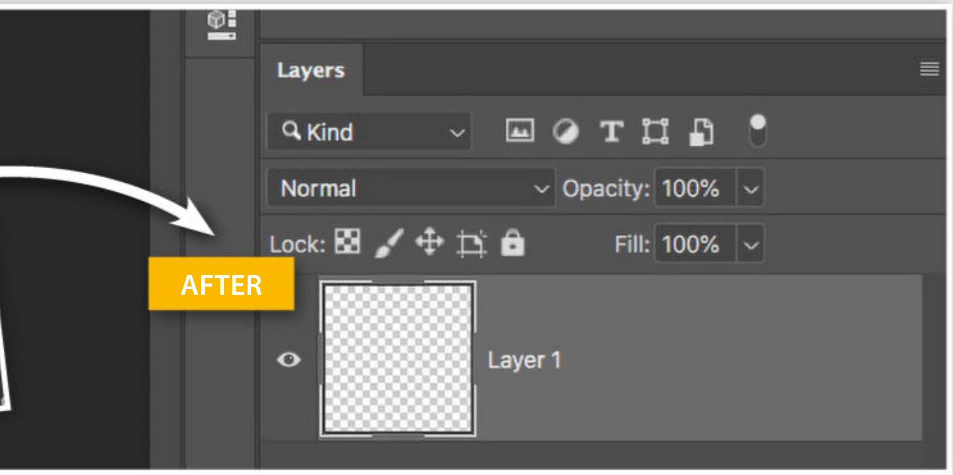
Your First PSD Document

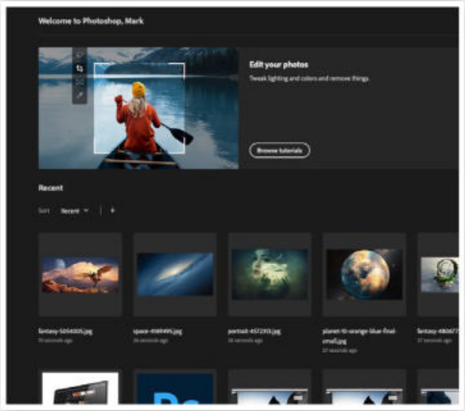
Let's start at the very beginning and walk you through the process of making your very first document

You might think that opening or creating a new Photoshop document is a very simple task to achieve. In the days of older versions of Photoshop that was certainly true with its original start up sequence. You either opened a photo, or you made a new document and started work. These days, with the advent of Photoshop 2025, it's a slightly more involved affair and goes way beyond anything that has been seen in Photoshop before. The newest version of the program has a Home screen and a more interactive front end, offering a lot more choice from the very moment you open the program. Let's start at the very beginning, dive in and have a quick look at what the Home Screen has on offer for the new user, create a couple of different documents and get to know the options available to us.

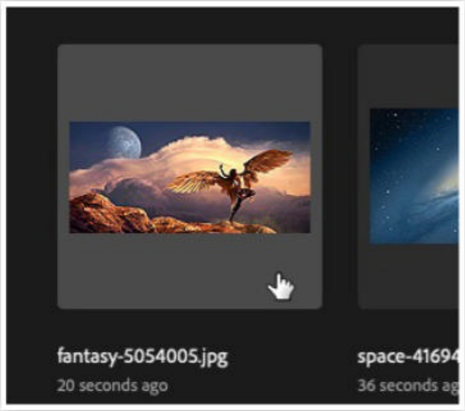

Edit your photos
Tweak lighting and colors and remove things.
Browse tutorials
Recent
Sort
Recent
fantasy-5054005.jpg
10 seconds ago
space-4169495.jpg
26 seconds ago
portrait-4572313.jpg
26 seconds ago
planet-10-orange-blue-final-small.jpg
27 seconds ago


Recent
Saved
YOUR RECENT ITEMS (20)
2000 pixel grid
2000 x 2000 px @ 300 ppi
1254 x 6
Custom
BEFORE

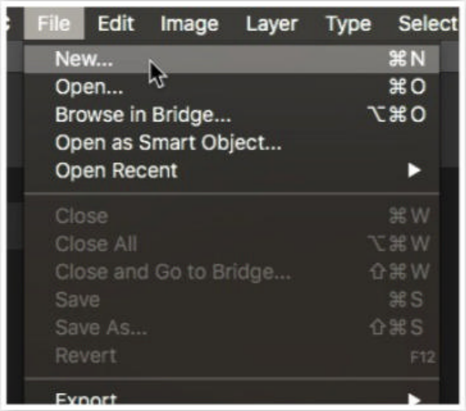

AFTER
Layers
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Layer 1


Welcome to Photoshop, Mark
Edit your photos
Recent

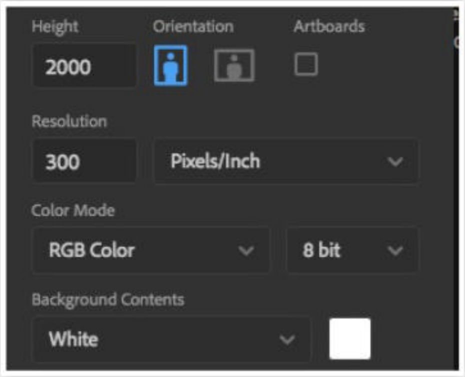
01 If you have never used Photoshop before, the first time you open the program you are presented with the Welcome screen giving you the option to take a tour, check out the new features or just open an image and get started on your new project.


fantasy-5054005.jpg
20 seconds ago
space-41694
36 seconds ag

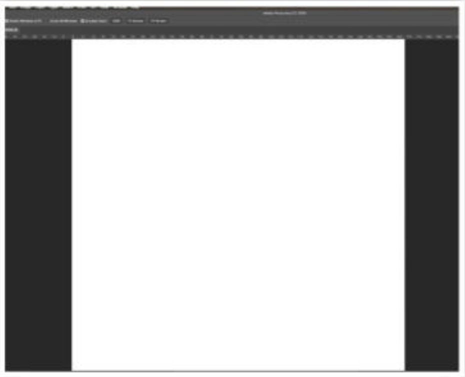
02 If you've used Photoshop a few times, your Home screen will look slightly different. It will display any recent images you have been working on as a set of thumbnails. You can click on any thumbnail to open that file and resume working on it.


File
Edit
Image
Layer
Type
Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export

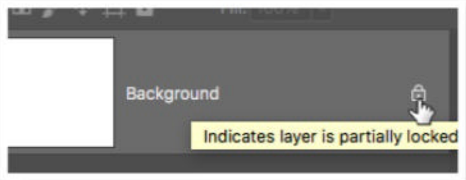
03 To create a new document, you can either go to the top file menu and choose File > New (Cmd + N), or simply click on the Create New button on the left of the Home screen. Either option will open the New Document screen, ready to start your project.

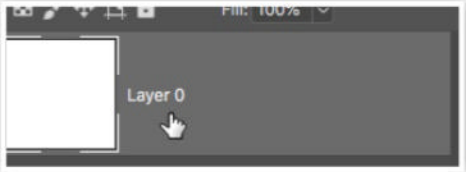

Height 2000
Orientation
Artboards ☐
Resolution 300 Pixels/Inch
Color Mode RGB Color 8 bit
Background Contents White

04 We've chosen a 2000 x 2000 pixel document. The default resolution is 300 pixels/inch and in RGB Color mode with White Background Contents. If you are not familiar with Colour Mode and Colour Profile, you can happily stick with the defaults for general use.

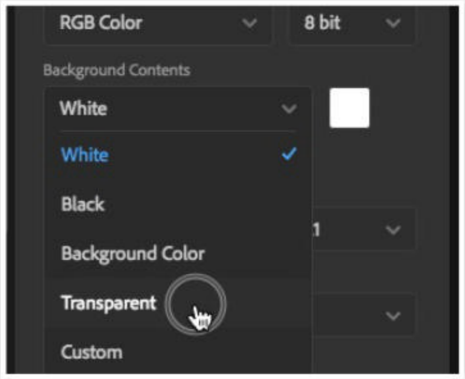


05 When you hit the Create button, a new document is created with your settings applied from the New Document screen. Since we opted for the Background Contents to be white, the new document will be created with the Background layer appearing as a locked, white layer.

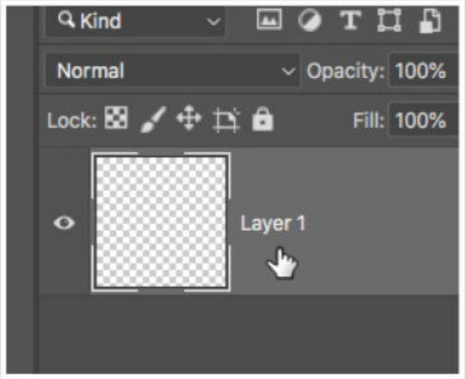

Background
Indicates layer is partially locked


Fill: 100%
Layer 0

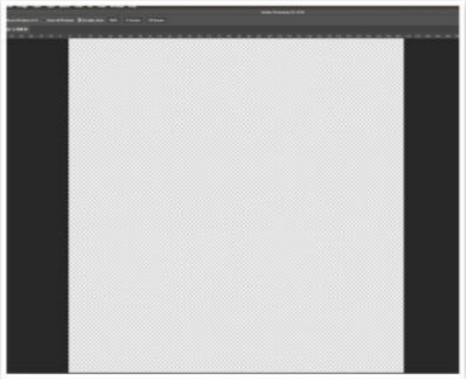
06 If you look at the Background layer in your layers palette, you will see the small Padlock icon that indicates the layer is locked. If you click on the Padlock icon, you can unlock the layer and turn it onto a standard, editable layer called Layer 0.


RGB Color
8 bit
Background Contents
White
White ✓
Black
Background Color
Transparent
Custom

07 Just for comparison, if we start going through the new document procedure once more, we can also alter the Background Contents and, in this case, choose Transparent instead. Now, when you hit the Create button, you will have a different looking document.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Layer 1

08 This time, when your new document appears, it will have a transparent background layer, called Layer 1, which will also be unlocked and ready to edit. Transparent layers are easy to spot since you will see the chequerboard pattern of white and grey squares.

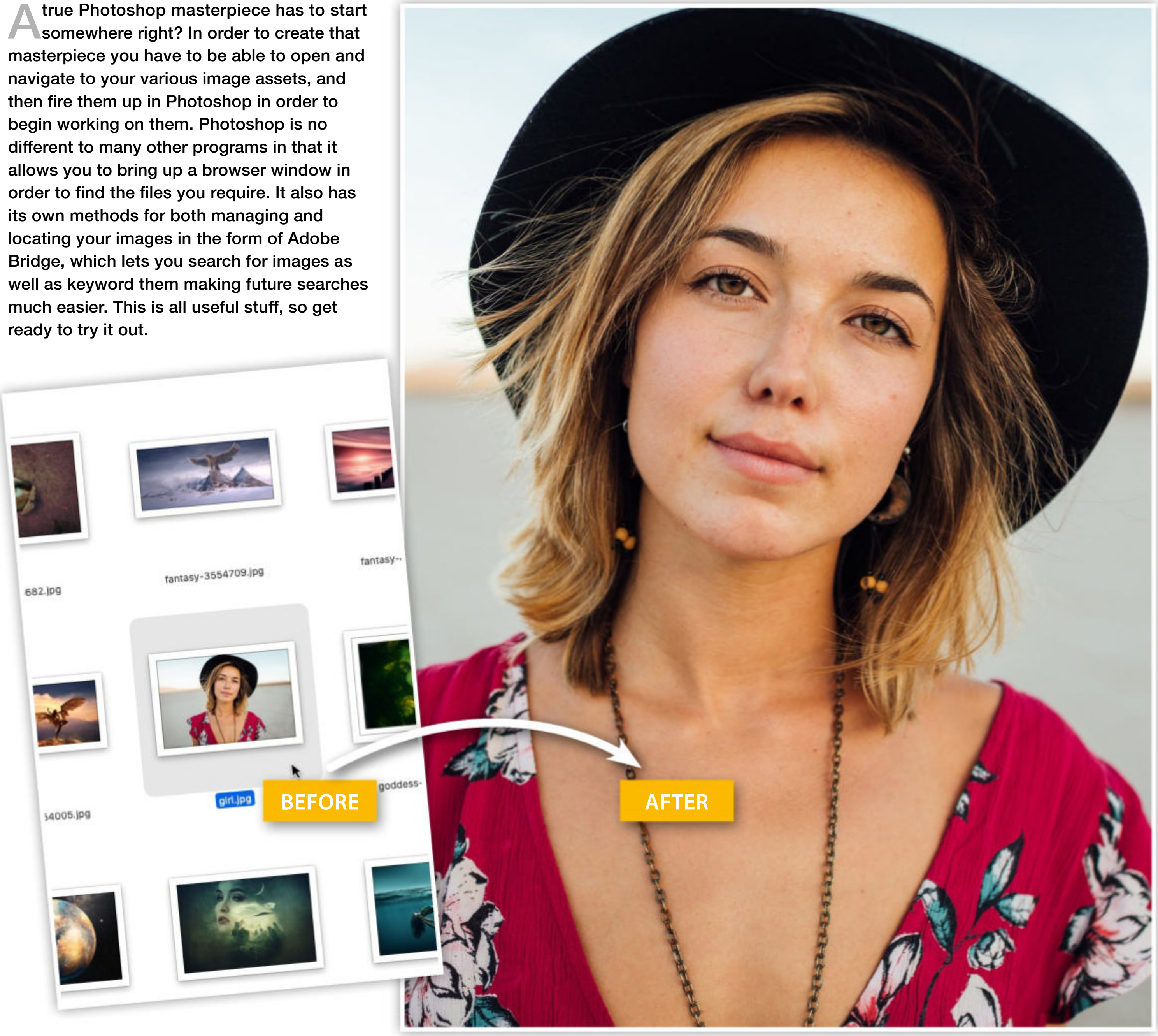


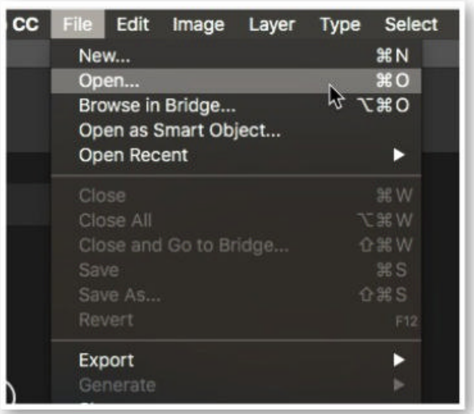
09 That is your first document created. So far so good, now, of course, you can start populating the document with images and graphics to create your very own work of art. Don't worry if you've not tried it before. We can show you how it's done.

Open and Save Your First Image

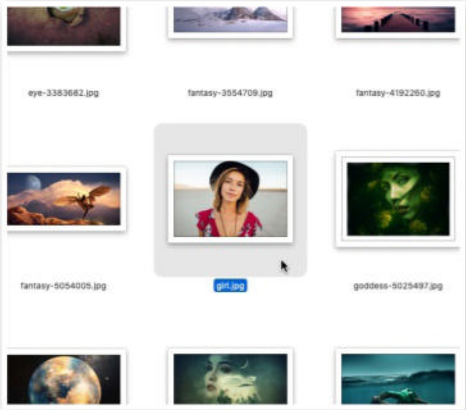
A quick guide on how to open new photos and images in Photoshop, and then save your edits

A true Photoshop masterpiece has to start somewhere right? In order to create that masterpiece you have to be able to open and navigate to your various image assets, and then fire them up in Photoshop in order to begin working on them. Photoshop is no different to many other programs in that it allows you to bring up a browser window in order to find the files you require. It also has its own methods for both managing and locating your images in the form of Adobe Bridge, which lets you search for images as well as keyword them making future searches much easier. This is all useful stuff, so get ready to try it out.

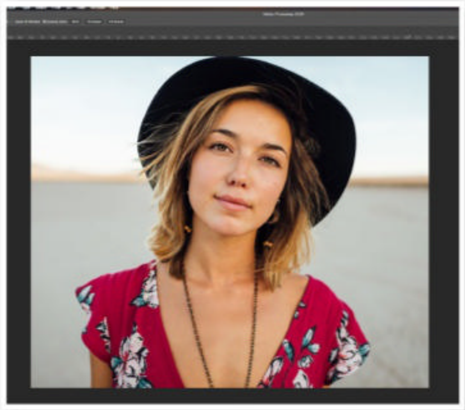



CC
File
Edit
Image
Layer
Type
Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export ▶
Generate ▶

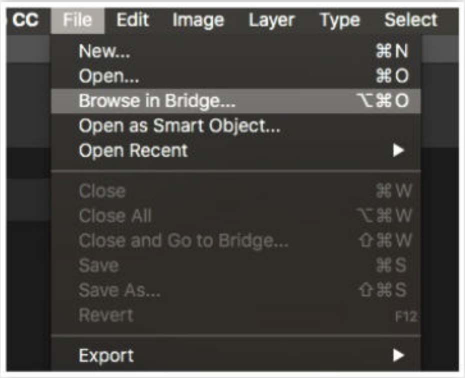
01 Since we've covered how to create a new document, it seems worthwhile just touching on the other options available. One of which is simply to open a base photo. You have the Open option on the Home screen, or, from the top file menu, you can choose File > Open (Cmd + O).


eye-3383682.jpg
fantasy-3554709.jpg
fantasy-4192260.jpg
fantasy-5054005.jpg
girl.jpg
goddess-5025497.jpg

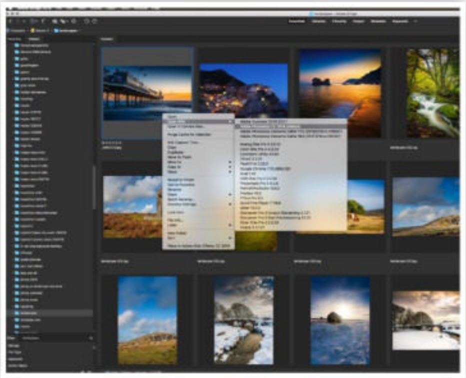
02 This calls up a new window where you can browse your computer's folders for any stored images. It makes sense to try and keep all your image files in a centralised repository, rather than casting around the darkest corners of your hard drive.



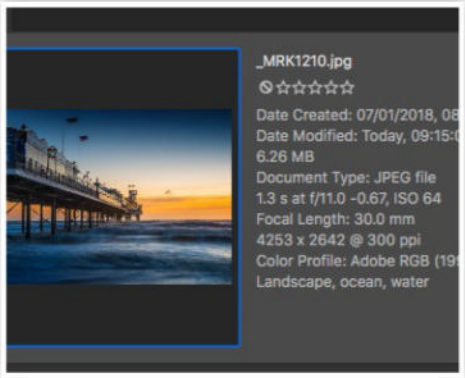
03 Once you have found your image, it is simply a case of either double-clicking the image in question, or highlighting it (or several images at once) and then clicking on the Open button at the lower right of the browser window. They will then open in Photoshop.


CC
File
Edit
Image
Layer
Type
Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export ▶

04 If we can step back to the Home screen for a moment. Rather than using the File > Open menu command, you can choose instead to use the File > Browse in Bridge (Alt + Cmd + O). Bridge is Adobe's image management, cataloguing and key wording application.

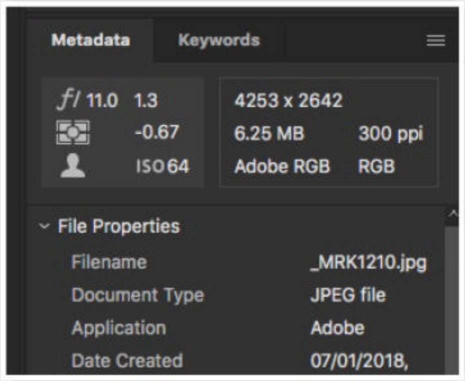


05 Rather than just using a standard browser window, you can use Adobe Bridge to find your images, display them, arrange them in date order and even add specific keywords making them that much easier to search for, and find, if you need them again.



_MRK1210.jpg
⊘☆☆☆☆☆
Date Created: 07/01/2018, 08
Date Modified: Today, 09:15:
6.26 MB
Document Type: JPEG file
1.3 s at f/11.0 -0.67, ISO 64
Focal Length: 30.0 mm
4253 x 2642 @ 300 ppi
Color Profile: Adobe RGB (19
Landscape, ocean, water

06 You can click single images and add keywords or you can select images in bulk, and, in the Keywords section of Bridge, click the New Keyword button and add keywords specific to those you have currently highlighted. They will then be displayed alongside the images.

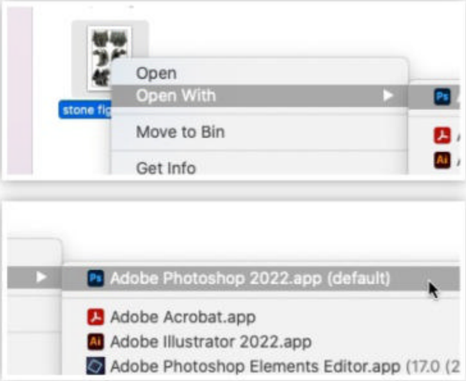

Metadata
Keywords

ƒ/ 11.0	1.3	4253 x 2642	
	-0.67	6.25 MB	300 ppi
	ISO 64	Adobe RGB	RGB

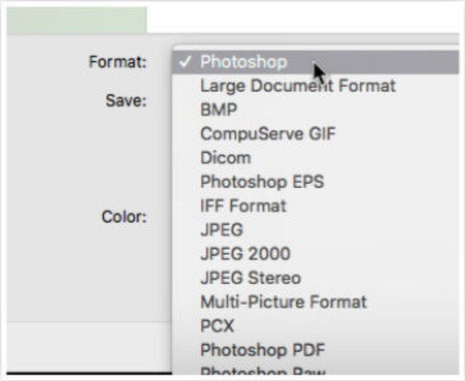
File Properties

Filename	_MRK1210.jpg
Document Type	JPEG file
Application	Adobe
Date Created	07/01/2018,

07 In Bridge, you can browse your images in much the same way as in a browser window except you have a lot more control over what you can do with them. You also have a lot more image data available to you, which is found in the Metadata section.


stone fig
Open
Open With ▶
Move to Bin
Get Info
Adobe Photoshop 2022.app (default)
Adobe Acrobat.app
Adobe Illustrator 2022.app
Adobe Photoshop Elements Editor.app (17.0 (2

08 When you have found your image, click on it to highlight it and then right-click it to bring up a context menu where you can choose from a number of options. In this case, we would go for the Open With > Adobe Photoshop 2022 (default) option.

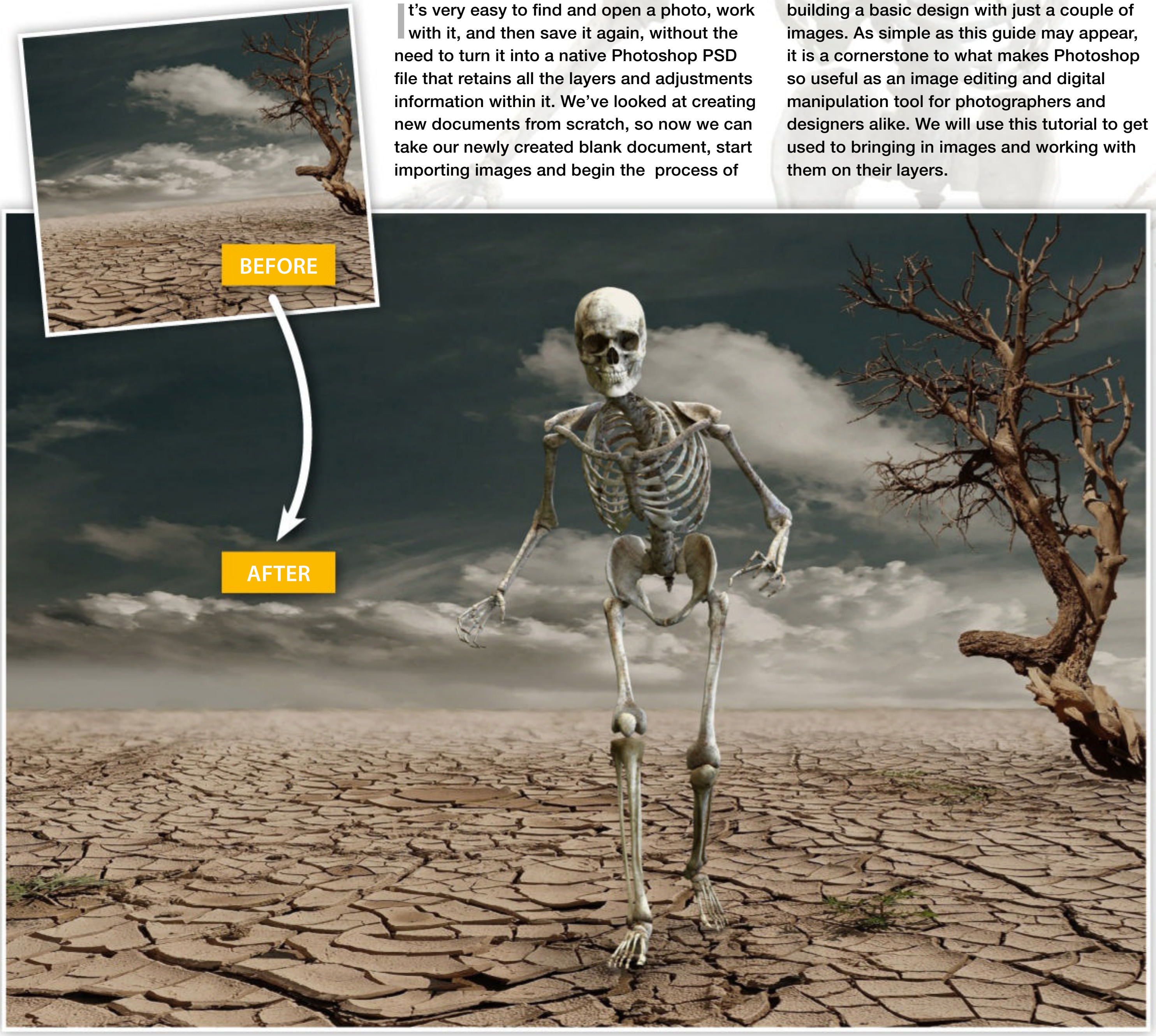

Format:
Save:
Color:
✓ Photoshop
Large Document Format
BMP
CompuServe GIF
Dicom
Photoshop EPS
IFF Format
JPEG
JPEG 2000
JPEG Stereo
Multi-Picture Format
PCX
Photoshop PDF
Photoshop Raw

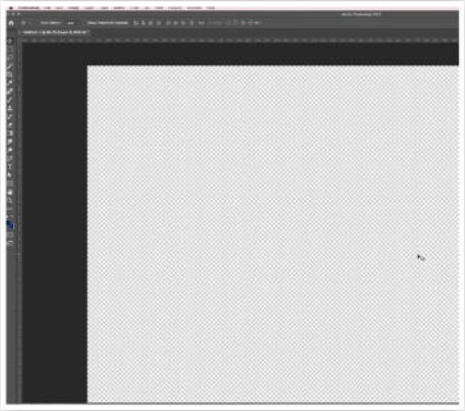
09 If you open a Jpeg and do not add any new layers, when you save it after editing, it will be saved in its original Jpeg format. If, however, you make edits that involve layers and adjustments, then it will need to be saved in PSD format to retain those layers.

Placing and Importing Images

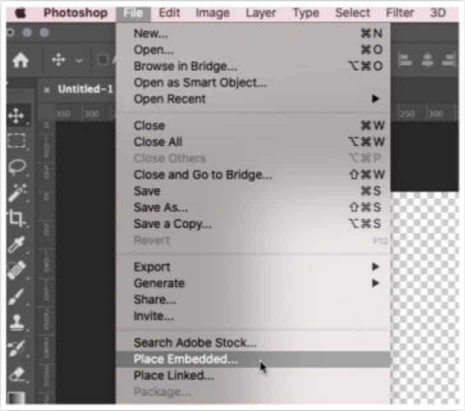
Now we will show you how to bring content into your document and make it look amazing

It's very easy to find and open a photo, work with it, and then save it again, without the need to turn it into a native Photoshop PSD file that retains all the layers and adjustments information within it. We've looked at creating new documents from scratch, so now we can take our newly created blank document, start importing images and begin the process of building a basic design with just a couple of images. As simple as this guide may appear, it is a cornerstone to what makes Photoshop so useful as an image editing and digital manipulation tool for photographers and designers alike. We will use this tutorial to get used to bringing in images and working with them on their layers.

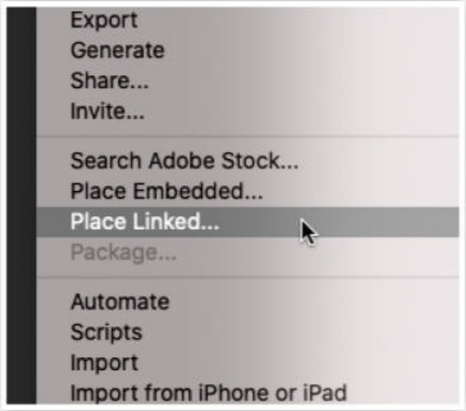




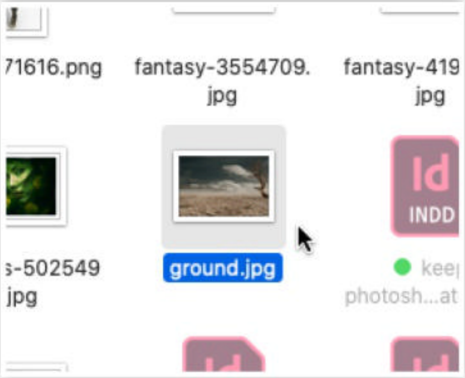
01 Opening a single image is a fairly simple process, which Photoshop makes even easier thanks to the number of ways you can interact with your files before opening them. Now, having made a blank document to your requirements, we'll go a step further and populate it.


Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
New...
Open...
Browse in Bridge...
Open as Smart Object...
Open Recent
Close
Close All
Close Others
Close and Go to Bridge...
Save
Save As...
Save a Copy...
Revert
Export
Generate
Share...
Invite...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...

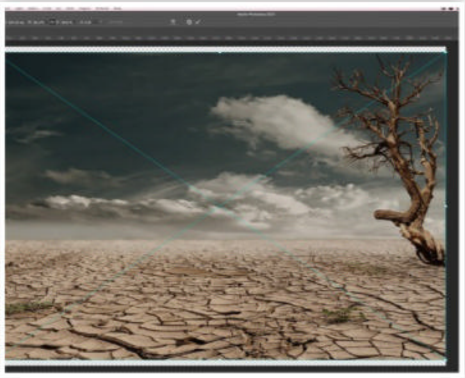
02 To begin, a quick word about the two methods on offer for imported images. You can use the Place Embedded option, which embeds images as Smart Objects that can be edited independently of your active document, but are still contained within it.


Export
Generate
Share...
Invite...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
Import from iPhone or iPad

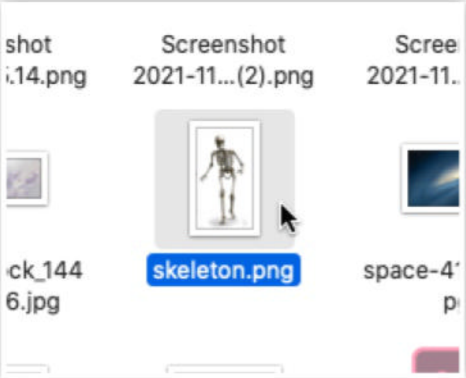
03 Secondly, you have the Place Linked option. This means you have an image that once placed in your document retains a link to the original file that you placed. Now, if you edit the original image, the next time you look at your document containing that image, it will update to the latest saved version.


71616.png
fantasy-3554709.jpg
fantasy-419 jpg
ground.jpg
INDD

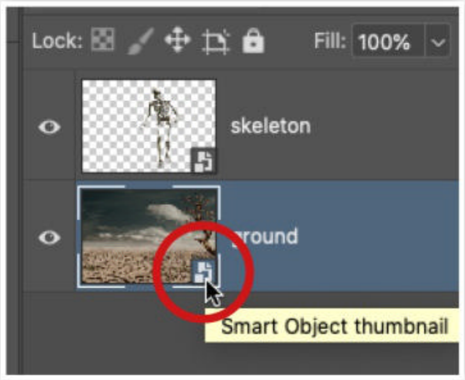
04 Here, we have used File > Place Embedded. Start by navigating to the folder with the first image you're using, highlight it and then click the Place button, or simply double-click it to open it in the document on its blank layer. Note the layer name changes to the image name.



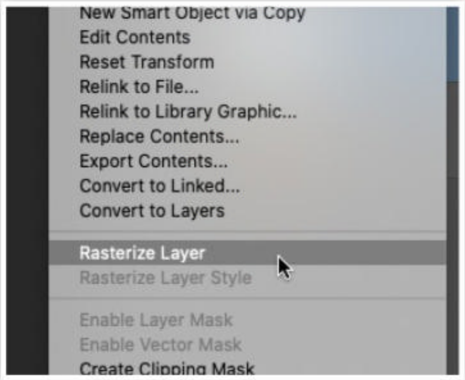
05 You can now move, scale and rotate the image before you commit to finally placing it on its layer. Click and drag the cover control points to scale the image to fully fill the document. Then you can hit Enter on your keyboard to commit the changes.


Screenshot 2021-11...(2).png
skeleton.png

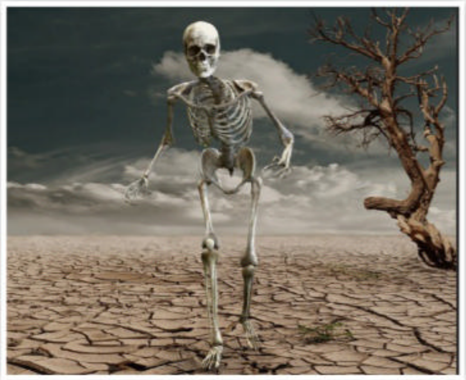
06 Go to File > Place Embedded again and this time choose a second image. We have a skeleton character we want to bring in to a new layer. Place this new image, and then use the control points to scale the image and also drag it to your preferred position.


Lock:
Fill: 100%
skeleton
round
Smart Object thumbnail

07 Both images, since they are embedded, are placed as Smart Objects. If you look in the lower right corner of their thumbnail, you'll see the small icon that denotes a placed Smart Object. If you are happy with them, you can convert them to standard pixels.


New Smart Object via Copy
Edit Contents
Reset Transform
Relink to File...
Relink to Library Graphic...
Replace Contents...
Export Contents...
Convert to Linked...
Convert to Layers
Rasterize Layer
Rasterize Layer Style
Enable Layer Mask
Enable Vector Mask
Create Clipping Mask

08 Right-Click on your layers to call up the Context menu. Look down the list and you will see the Rasterize Layer option. When you select this, you will convert each of the Smart Objects into normal pixel-based images that now behave like standard photos.



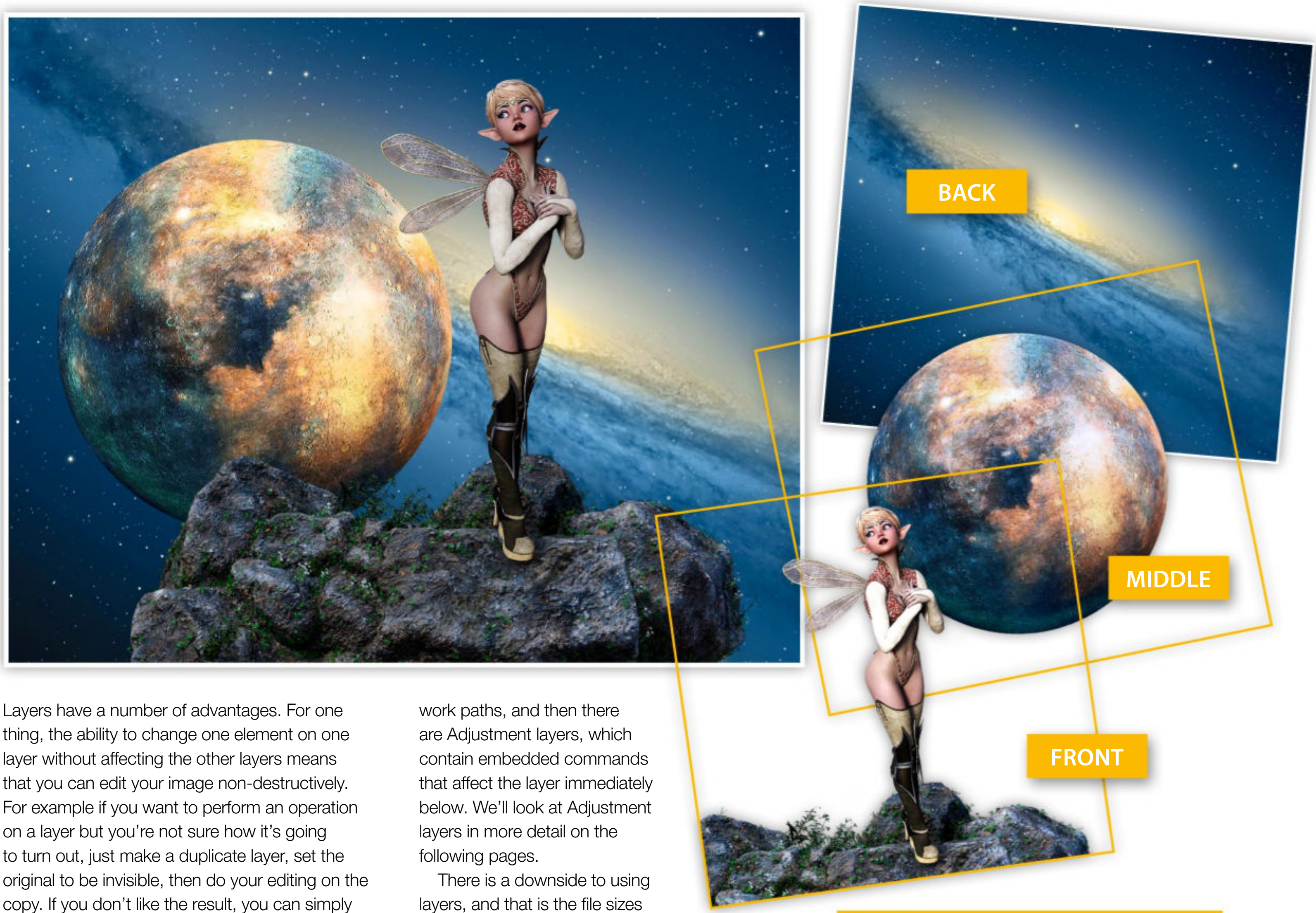
09 You have created a basic document with two layers. It might seem quite simple, but this is what makes Photoshop so versatile and offers you the chance to take various image elements and combine them in amazing new ways to create stunning artworks.

Using Layers

Understanding layers is fundamental to Photoshop editing

The concept of Layers was first introduced with Photoshop 3.0 in 1994, and has become the very core of Photoshop image editing, as well as being imitated by every other image editing program on the market. Layers are exactly what they sound like; the elements of the image are stacked up and displayed in descending order. Since layers can include transparency, lower layers can be visible through higher layers.

Effects, adjustments and operations can be applied to individual layers, or to all the layers at once. You can: move layers around relative to one another, change the order of layers in the stack, turn layers on or off and delete layers, without affecting the others. Some people seem to have a hard time getting their head around the concept of layers, so the best way to think of them is as a pile of glass panels with the elements that make up the image painted onto them, with you looking down on them from above to see how they stack up.



Layers have a number of advantages. For one thing, the ability to change one element on one layer without affecting the other layers means that you can edit your image non-destructively. For example if you want to perform an operation on a layer but you're not sure how it's going to turn out, just make a duplicate layer, set the original to be invisible, then do your editing on the copy. If you don't like the result, you can simply delete it and go back to the original.

There are four main types of layer. There are Pixel layers, which contain the graphical elements of the image. There are Text layers, which contain text information which can be edited and resized. There are Vector layers, which contain vector information such as shapes and work paths, and then there are Adjustment layers, which contain embedded commands that affect the layer immediately below. We'll look at Adjustment layers in more detail on the following pages.

There is a downside to using layers, and that is the file sizes they generate. Adding layers and the information that goes along with them massively increases the size of the file, so when you've finished editing and you want to save the picture you've created, it's usually a good idea to Flatten the image, which merges all the layers together into a single image.

USEFUL TIP

Click on a layer, press and hold the Shift key on your keyboard and click on another layer to multi-select a number of layers.

The Layer Palette

Knowing your way around the Layer palette is vital if you want to make the best use of this feature.

Blend Mode

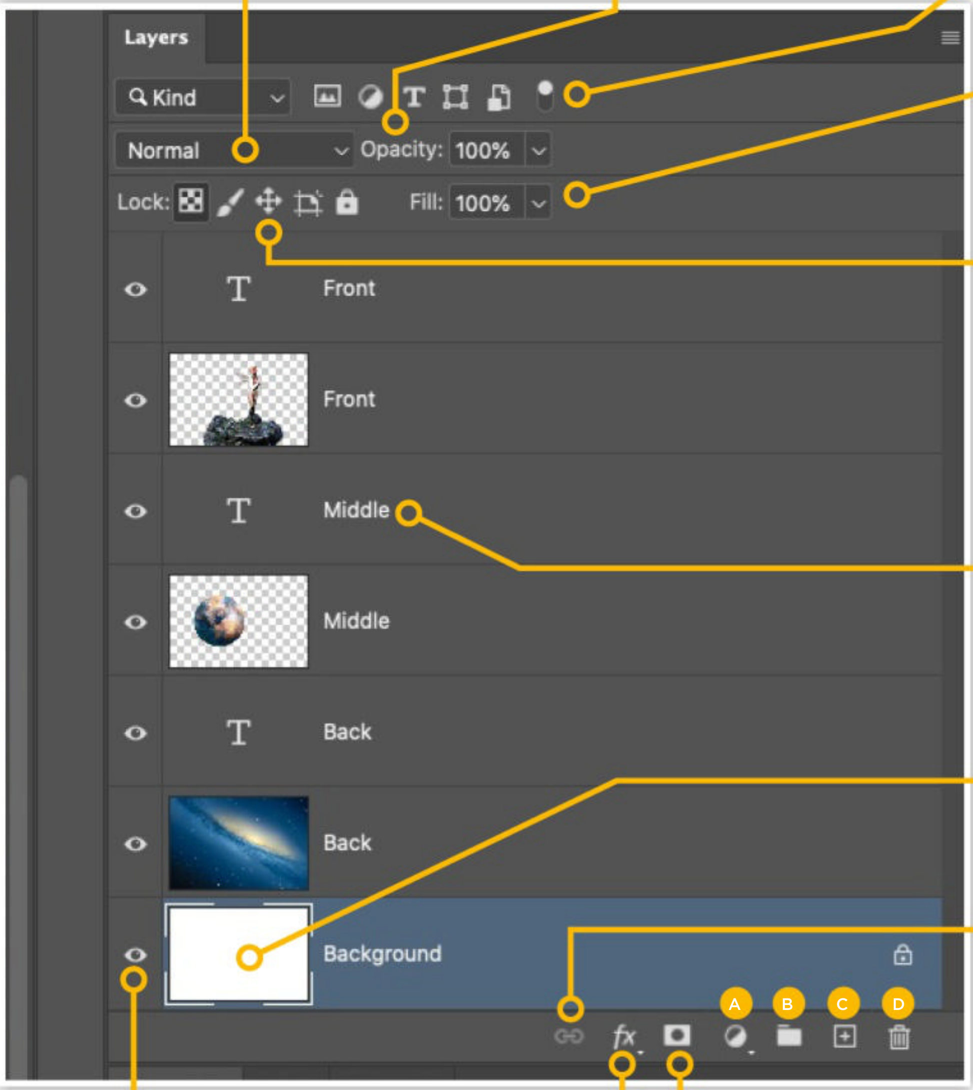
Determines how the layer interacts with the layer below it. Can be changed for every layer one by one, or for a group.

Opacity

Controls how transparent the layer is, and how much of the layer below will show through. You can use the slider or numeric value.

Layer Filters

Choose to display only one type of layer, or all of them, and by selecting the drop-down you can select the order in which you show them.



Fill

Similar to Opacity, but only works on pixel information, ignoring blending options and layer effects.

Layer Locks

By clicking on these buttons you can lock the layer from any further activity. Transparency, image pixels and position can be locked independently of each other.

Text Layer

There are several different types of layer. Text layers, not surprisingly, contain text characters.

Background

The Background layer is the default bottom layer, and always starts off locked when you open a new Photoshop document.

Link Layers

Highlight a few layers and then click this button to link the layers. Transform and Move commands will affect all linked layers.

Visibility

Clicking on the eyeball simply renders the layer and all its effects invisible. Also, Alt + left-click to view that layer on its own.

Layer Styles

This panel lets you add effects such as drop shadow, bevelled edges, inner glow, gradient overlay and much more.

Layer Mask

Add a mask to a pixel-based layer, to reveal or conceal information, using black to conceal or white to reveal.

A Adjustment Layer

An alternative to the main layer menu, and here you can add all the adjustment effects such as Levels, Brightness and Contrast and Saturation.

B New Group

Creates a new layer group, into which you can drag and drop layers, which helps you to organise layers in a big complicated composition.

C New Layer

Clicking on this button creates a new blank layer directly above the currently active layer.

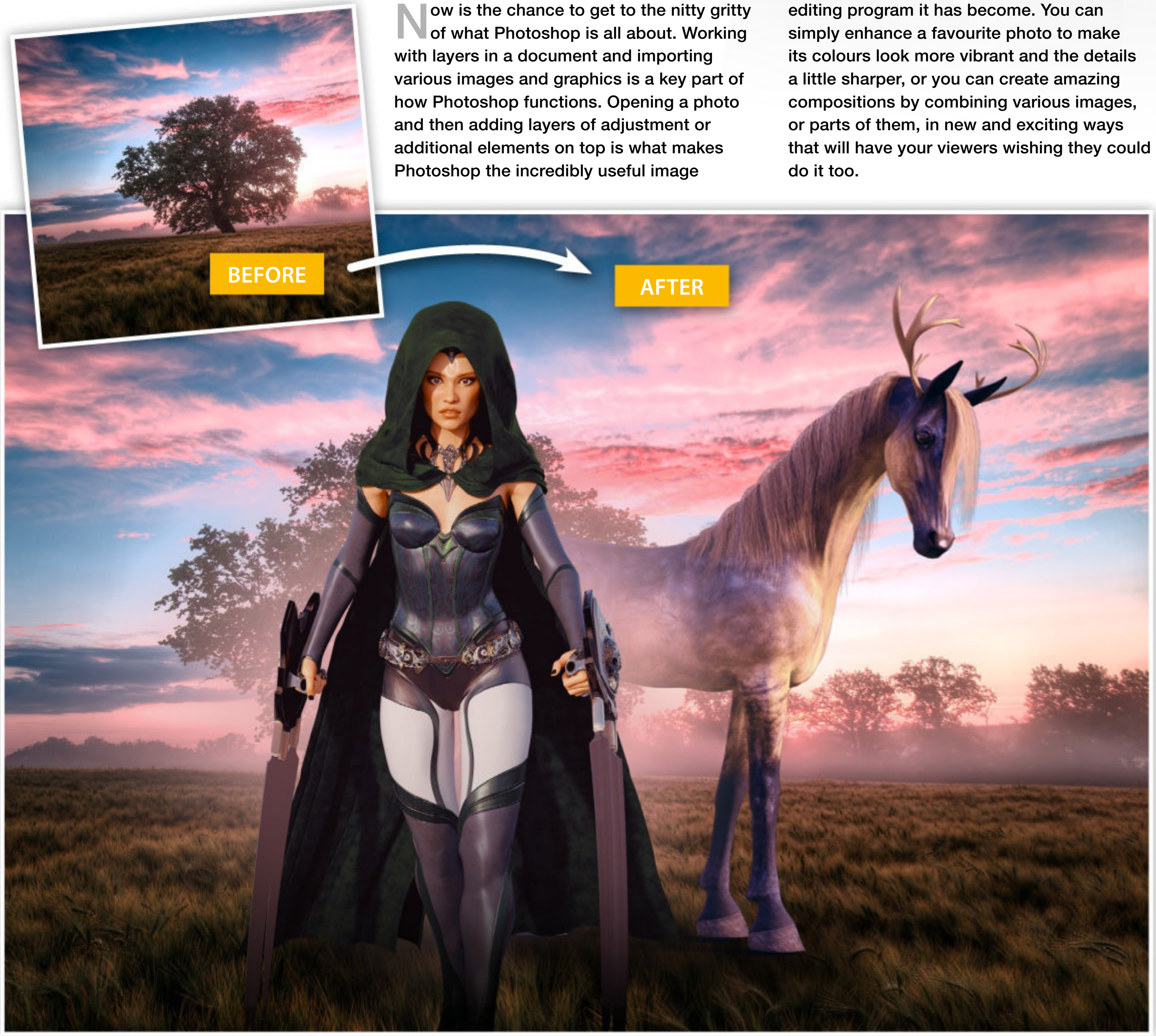
D Delete Layer

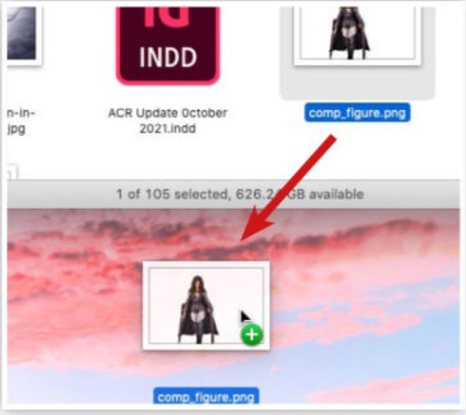
Does exactly what you'd expect it to do. Click to delete the currently active layer, or drag a layer onto the button to delete it.

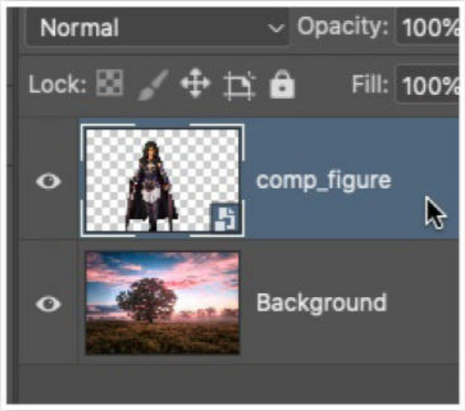
Your First Composition

This is when you discover the power of Photoshop

Now is the chance to get to the nitty gritty of what Photoshop is all about. Working with layers in a document and importing various images and graphics is a key part of how Photoshop functions. Opening a photo and then adding layers of adjustment or additional elements on top is what makes Photoshop the incredibly useful image editing program it has become. You can simply enhance a favourite photo to make its colours look more vibrant and the details a little sharper, or you can create amazing compositions by combining various images, or parts of them, in new and exciting ways that will have your viewers wishing they could do it too.



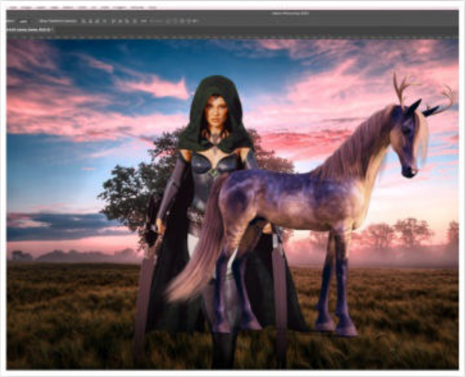

INDD
n-in-
jpg
ACR Update October 2021.indd
comp_figure.png
1 of 105 selected, 626.2 GB available
comp_figure.png

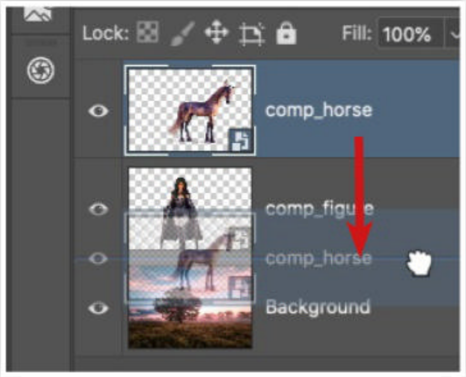

Normal
Opacity: 100%
Lock:
Fill: 100%
comp_figure
Background

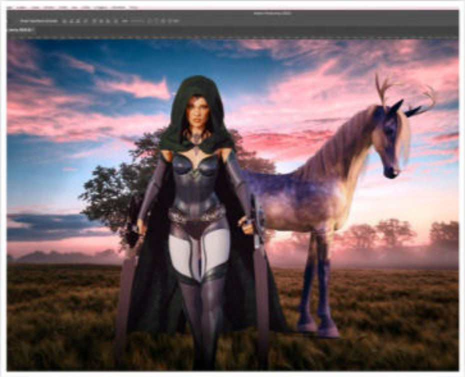
01 This new artwork starts with the opening of a base image. In this case, we chose File > Open (Cmd + O) and then navigated to where our background image was stored. We have chosen a pasture background image for our new composition. Now we can add more elements.

02 If you wanted to, you can keep a browser window open on your computer that contains your images and, rather than going through the open and find procedure, you can simply bring the browser window to the front and drag your next image on top on the base image.

03 This means our dropped image will open on its own layer, which will be named after the title of the file. In this example, an image of a warrior princess now sits above our base image on a new layer. Next, we need a little more background interest to flesh out the scene.



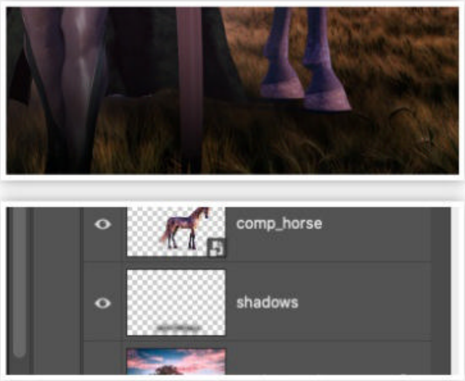

Lock:
Fill: 100%
comp_horse
comp_figure
comp_horse
Background

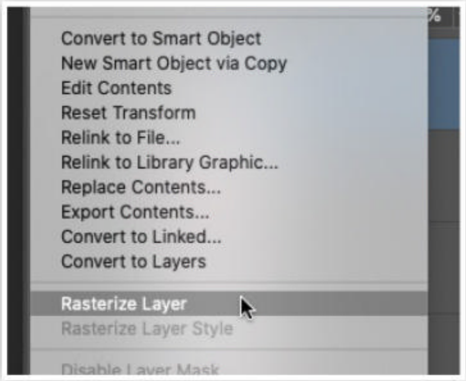


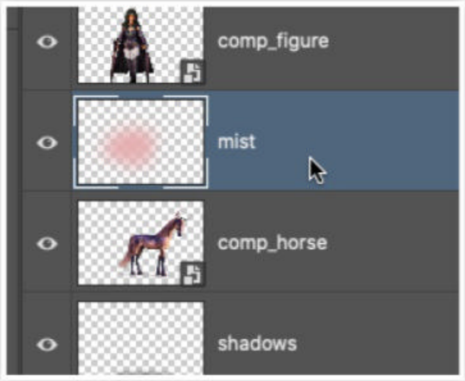
04 Using the same drag and drop technique, we add a mythical creature that sits quite nicely in the background. There is one problem however; the horse now appears to be covering our foreground character. This is when layers become so useful.

05 By clicking and holding the mouse over the layer containing the horse, we can actually drag that layer so that it sits underneath the layer containing the princess. Now, with our figure in the foreground and the horse behind her, the image makes more sense.

06 Since each element is on a separate layer, they can be edited and manipulated independently of each other. For instance, the horse might look better if it were the other way around, so the layer could be flipped horizontally for a different composition if you wanted.


comp_horse
shadows

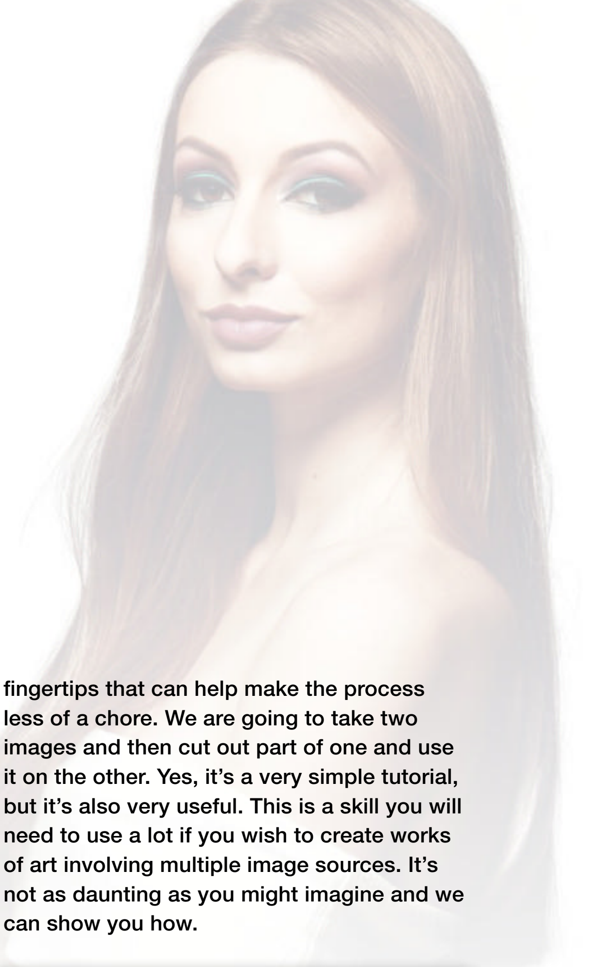

Convert to Smart Object
New Smart Object via Copy
Edit Contents
Reset Transform
Relink to File...
Relink to Library Graphic...
Replace Contents...
Export Contents...
Convert to Linked...
Convert to Layers
Rasterize Layer
Rasterize Layer Style
Disable Layer Mask


comp_figure
mist
comp_horse
shadows

07 If you go to the layer options palette, you can click on the Create A New Layer button and then add a layer between the horse and the base image called 'shadows'. Here you can use a soft black brush to add some shadow to anchor the creature to the ground more realistically.

08 Since both the figure and the horse are Smart Objects, when we are happy with their final placement, orientation and size, we right-click on them, choose Rasterize Layer from the menu and convert them to normal pixel images in each of their layers.

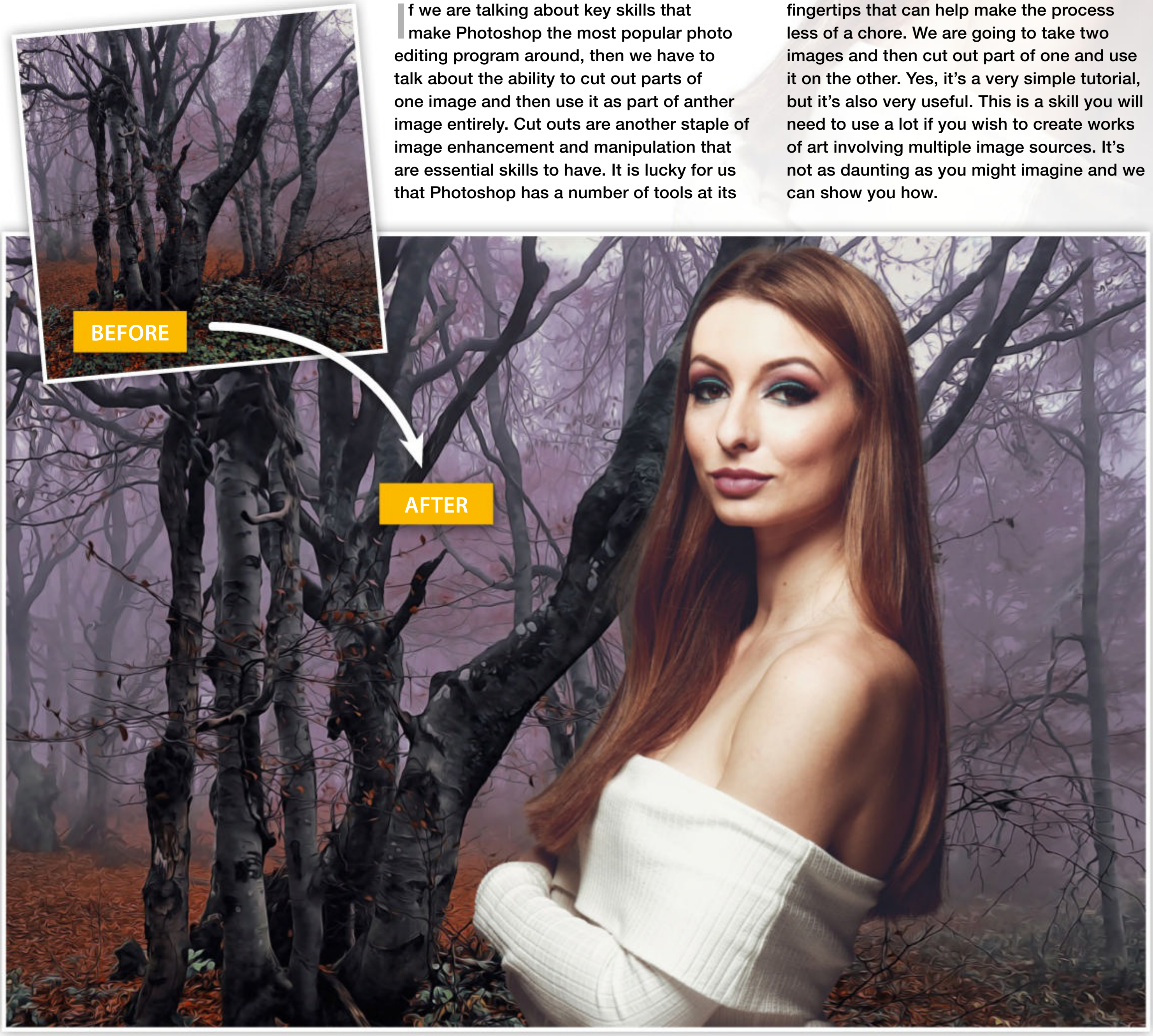
09 One final addition for this example is a new layer named 'mist', which is placed between the princess and the horse. This layer of mist contains white brush marks and then, to complete this dramatic composition, its Opacity can dropped to about 45%.

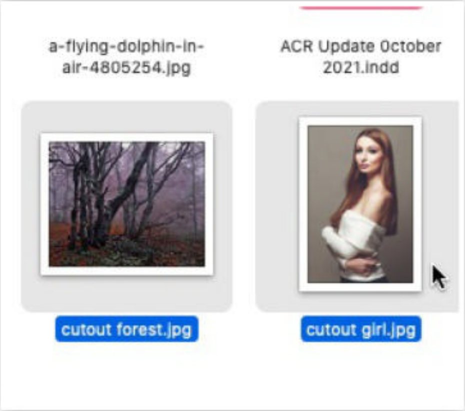


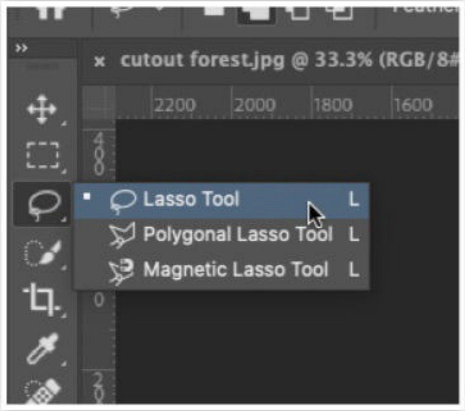
Your First Cut Out

Learn how to cut out parts of one image to use on another

If we are talking about key skills that make Photoshop the most popular photo editing program around, then we have to talk about the ability to cut out parts of one image and then use it as part of anther image entirely. Cut outs are another staple of image enhancement and manipulation that are essential skills to have. It is lucky for us that Photoshop has a number of tools at its fingertips that can help make the process less of a chore. We are going to take two images and then cut out part of one and use it on the other. Yes, it's a very simple tutorial, but it's also very useful. This is a skill you will need to use a lot if you wish to create works of art involving multiple image sources. It's not as daunting as you might imagine and we can show you how.



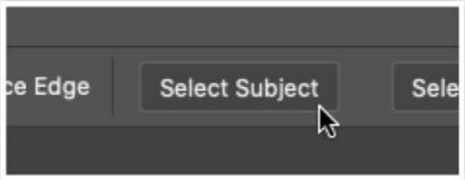

a-flying-dolphin-in-air-4805254.jpg
ACR Update October 2021.indd
cutout forest.jpg
cutout girl.jpg

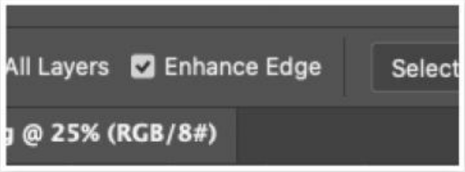

cutout forest.jpg @ 33.3% (RGB/8#
2200
2000
1800
1600
Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L

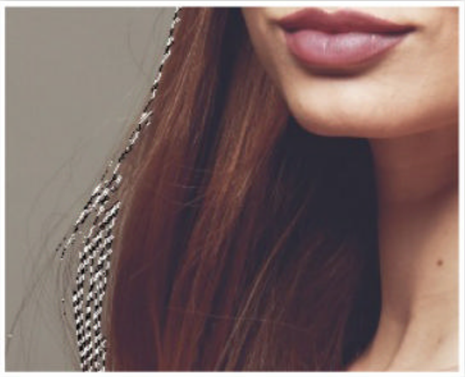
01 We have gone to File > Open and then navigated to a folder containing the two images we want to combine. They consist of a shot of a model along with a very moody woodland shot we want to use as a backdrop. We select both and then click on Open to get started.

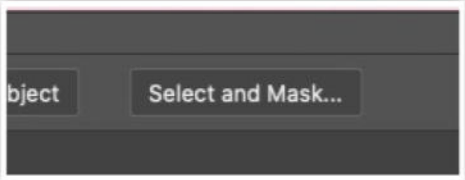
02 We need to concentrate on the girl's image first since we want to remove her from her background. This image has one immediate benefit in that, for the most part, the girl's outline is reasonably well defined against the lighter colours of the background she is pictured front of.

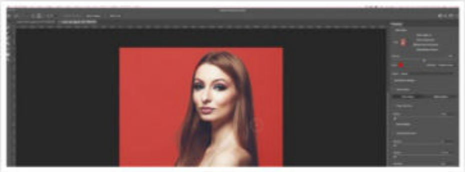
03 We could choose the Lasso tool (L) and try to draw freehand around the outline of the girl. This can be a time-consuming, tricky and relatively inaccurate way to do it when there are other tools available to us in Photoshop's comprehensive selection arsenal.


ce Edge
Select Subject
Sele


All Layers
☑ Enhance Edge
Select
@ 25% (RGB/8#)



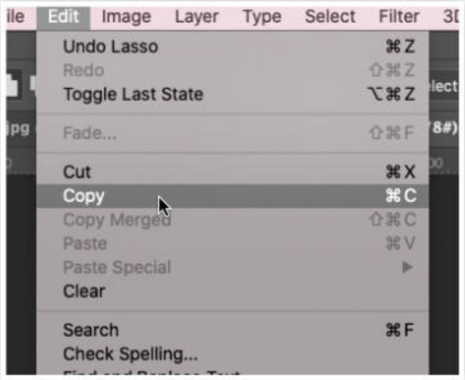

bject
Select and Mask...

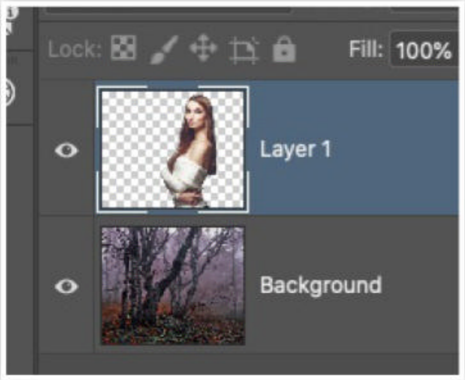


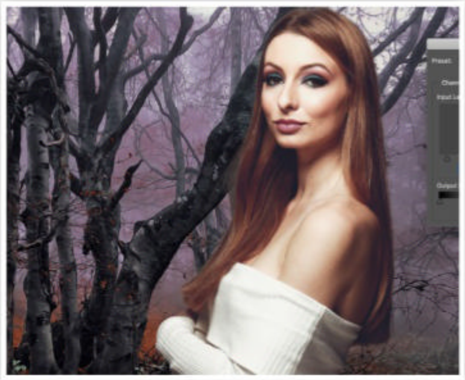
04 In this example, the Quick Selection tool (W) could be a better option, but since this is a recently updated version of Photoshop, there are newer selection tools that might be even better. The Select Subject button in the tool options bar is just the ticket.

05 The Select Subject tool will automatically scan and analyse the image for you and then it will make a best guess of what it considers to be the main subject and put a selection around it. Since our model is posing against a plain background, the selection is fairly accurate.

06 Luckily, we have additional tools that allow us to refine the selection still further using the Select and Mask tool. We can click on it and use the Refine Edge Brush tool (R) to brush over any areas that might be in need of some targeted refinement and we can use the Refine Hair tool.


Edit
Image
Layer
Type
Select
Filter
Undo Lasso ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...


Lock:
Fill: 100%
Layer 1
Background



07 If you're happy with the refinement, click OK to proceed and return to the main image. You can now go to Edit > Copy (Cmd + C) to copy all the pixels inside the selection area you have created. You can then click on the document tab of the other image to open it.

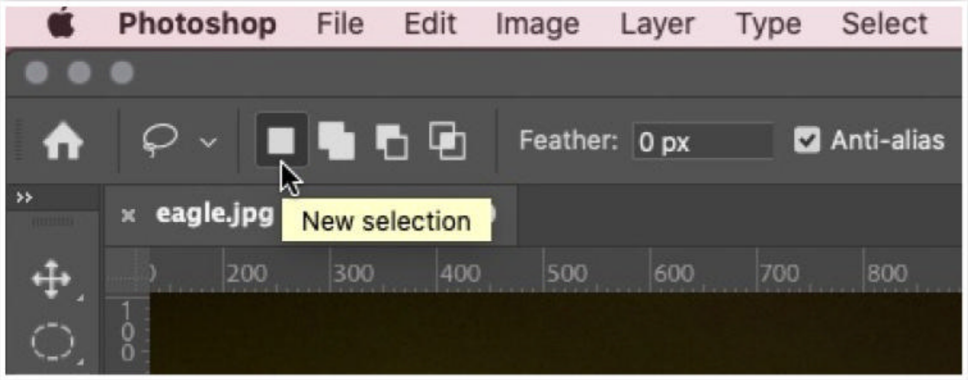
08 Now we can go to Edit > Paste (Cmd + V) and paste the cut out girl into this document on its own layer, which is called 'Layer 1' by default. The figure can be moved, scaled and rotated if we wish until we have it how we want it against the woodland background.

09 All we did next was to use a couple of Levels adjustments to add more contrast to the figure and a little Color Balance adjustment on the woods to make their colours more compatible. The end result is a fine example of how to quickly make cut outs in Photoshop.

Selection Tools

This fundamental technique allows multiple methods for isolating specific areas of your image

The ability to select discrete areas of an image and change them in isolation is fundamental to Photoshop editing and to help with this there are many different ways of making that selection. The most frequently used are the Marquee tools, which allow you to select regular shapes such as rectangles, ellipses and lines. For irregular shapes there are several Lasso tools, which let you draw the area to be selected. For quicker selections there are the Magic Wand and Quick Selection tools.

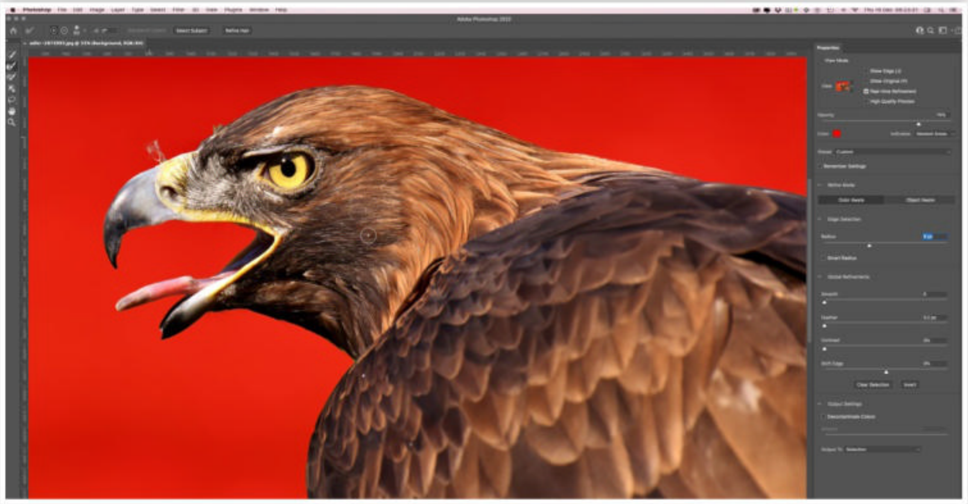


Feather: 0 px

☑ Anti-alias

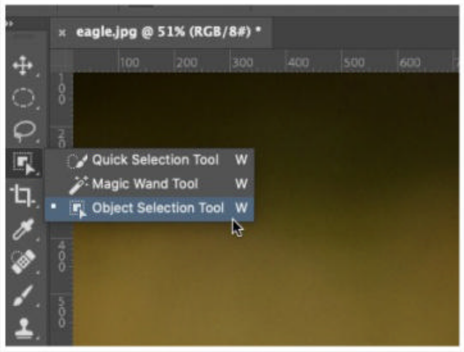
Common Options

If you look across the top left of your menu bar, you will see there are common tool options for all of the selection tools. After the Home button and the Tool preset picker are the selection options. The row of four buttons are: New Selection, which is the default setting; Add To Selection, which can also be activated temporarily by holding down the Shift key; Subtract From Selection, also activated by the Alt key; and Intersect With Selection, which selects only from areas you have already selected.



Edge Refinement

The next option is Feather, which softens the edge of the selection based on the number of pixels you enter in the Feather input field. This is useful for gradual effects where you do not want a hard edge around your active selection. If you want even more control, the edge of the selection can be further adjusted by using Select and Mask, which uses sophisticated edge-detection techniques to automatically select around things like fine hair or soft and blurred edges. You are given a number of options and tools to control just how much refinement and adjustment you want to apply to your selection. A number of selection tools are also included within the Select and Mask panel itself.



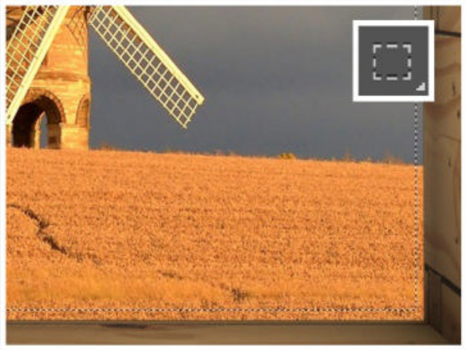
Object Selection Tool

The most recent update to Photoshop has seen a number or improvements to the selection tools on offer. Most notable is the Object Selection Tool which can scan your image and individually target all the differentiated objects in your photo. This is a handy new feature and when used in conjunction with all the other selection methods such as Select Subject, Select Sky and all those shown opposite, you have lots to choose from.

USEFUL TIP

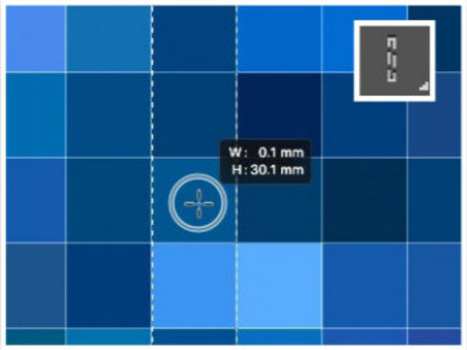
You can use the Quick Selection tool to quickly paint a selection using an adjustable round brush tip. As you drag, the selection expands outward and automatically finds and follows defined edges in the image. If the tool isn't visible in your toolbar, hold down the Magic Wand tool to see the fly-out menu with the additional options that are available to you.

Rectangular Marquee



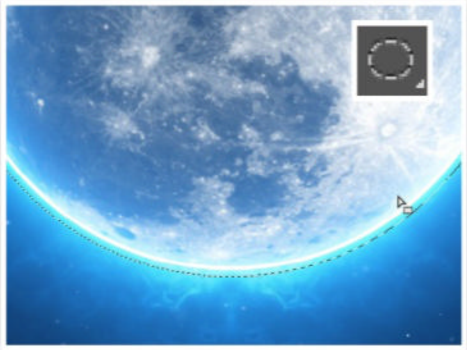
Make a selection of a rectangular area of any size or aspect ratio. Just click and drag to the right size. Hold down the Shift key to constrain the selection to a square shape and use the arrow keys to move the selection area.

Single Column Marquee



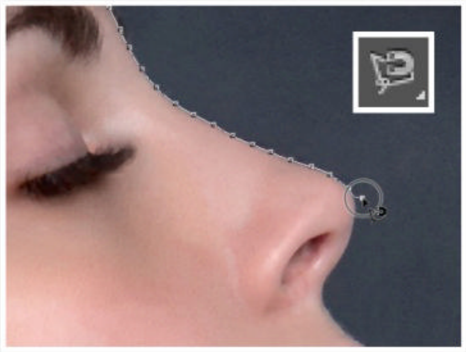
This option creates a selection of just a single vertical column of pixels. This is useful for tidying up other selections or crops that are just a little too big. Click near the area you want to select and then drag the marquee to the exact location.

Elliptical Marquee



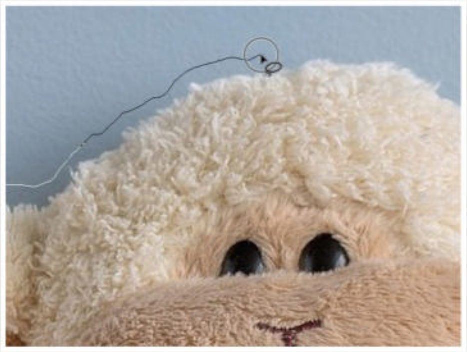
Create a selection of an elliptical shape of any size or proportion. Just click and drag to the size and shape you need and hold down the Shift key to draw a circle. If you hold down the Alt key the ellipse will be centred on the starting point.

Magnetic Lasso



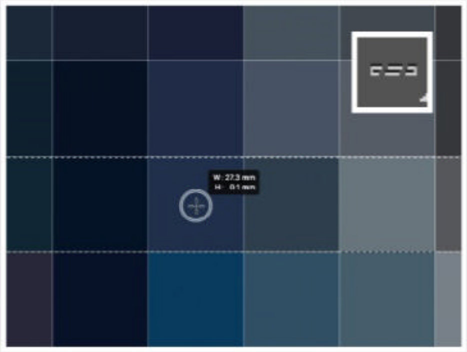
This tool uses edge-detection to try to match your selection to the edges of the subject in the image. You simply draw a line as closely as possible to what you want and it should automatically snap to the edge. Works best on high contrast areas.

Lasso



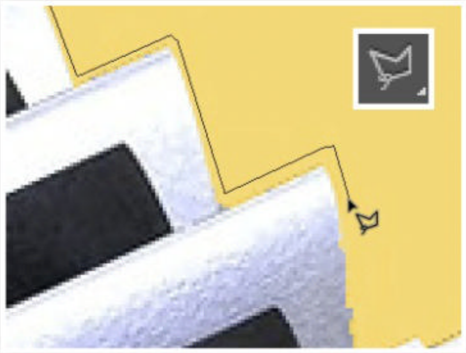
The Lasso is also used to make area selections from the active layer, but this time the shape can be irregular, marked out by clicking or drawing a line around the area to be selected. Join up your lasso at the point you started to close the selection.

Single Row Marquee



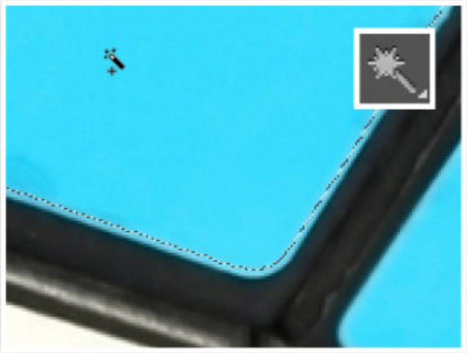
This is the same as Single Column Marquee, but this time it selects a single horizontal row of pixels. As with the Single Column Marquee option, click near the area you want to select and then drag the marquee to the exact location.

Polygonal Lasso



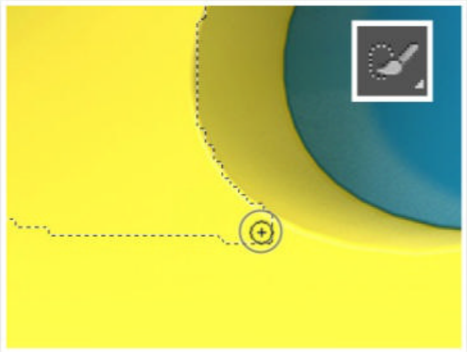
The Polygonal Lasso lets you draw a point-to-point line around your subject. It can only draw straight lines, but by using very short sections it's possible to approximate a curved line. To draw curved lines you need to use the Pen tool.

Magic Wand



This tool lets you make selections from areas of the same colour and brightness and by adjusting the tolerance and whether or not it will select contiguous areas, you can use it to do things like automatically select all the sky in your image.

Quick Selection



This tool lets you paint a selection and uses edge detection to try to match the selection to the nearest hard edge in the image. Again it's often only an approximation and will have problems with blurred or low contrast edges.

Generative AI

The latest feature to be added to Photoshop is complete AI-powered image generation.

Even though Artificial Intelligence is a very new technology, it seems to have taken the world by storm in an amazingly short time. OpenAI's ChatGPT was only launched in 2022, but already similar "large language model" AI systems are being built into web browsers, mobile phones and online help centres, and new applications for this technology are being developed at a breakneck pace.

Related to this is Generative AI, which is capable of creating digital images from natural language descriptions, known as "prompts". The three best-known systems are Stable Diffusion and Midjourney, both launched in 2022, and DALL-E, which was added to ChatGPT in 2023. They all differ slightly in their exact method of operation, but produce similar results: high-quality digital images which, in some cases, are all but indistinguishable from human-created artwork and even photographs.

The reason that they are able to do this with such astonishing accuracy is the cause of some controversy. The three leading Generative AI systems are "trained" using hundreds of millions of images gathered from the Internet, allegedly including copyrighted work by the same professional artists and photographers whose livelihoods may be threatened by this new technology. This is currently the subject of at least one major class-action lawsuit in the USA, and the outcome is not yet known at the time of going to press. For Adobe, the Generative AI tool utilises Adobe Stock, it's own extensive library of images.

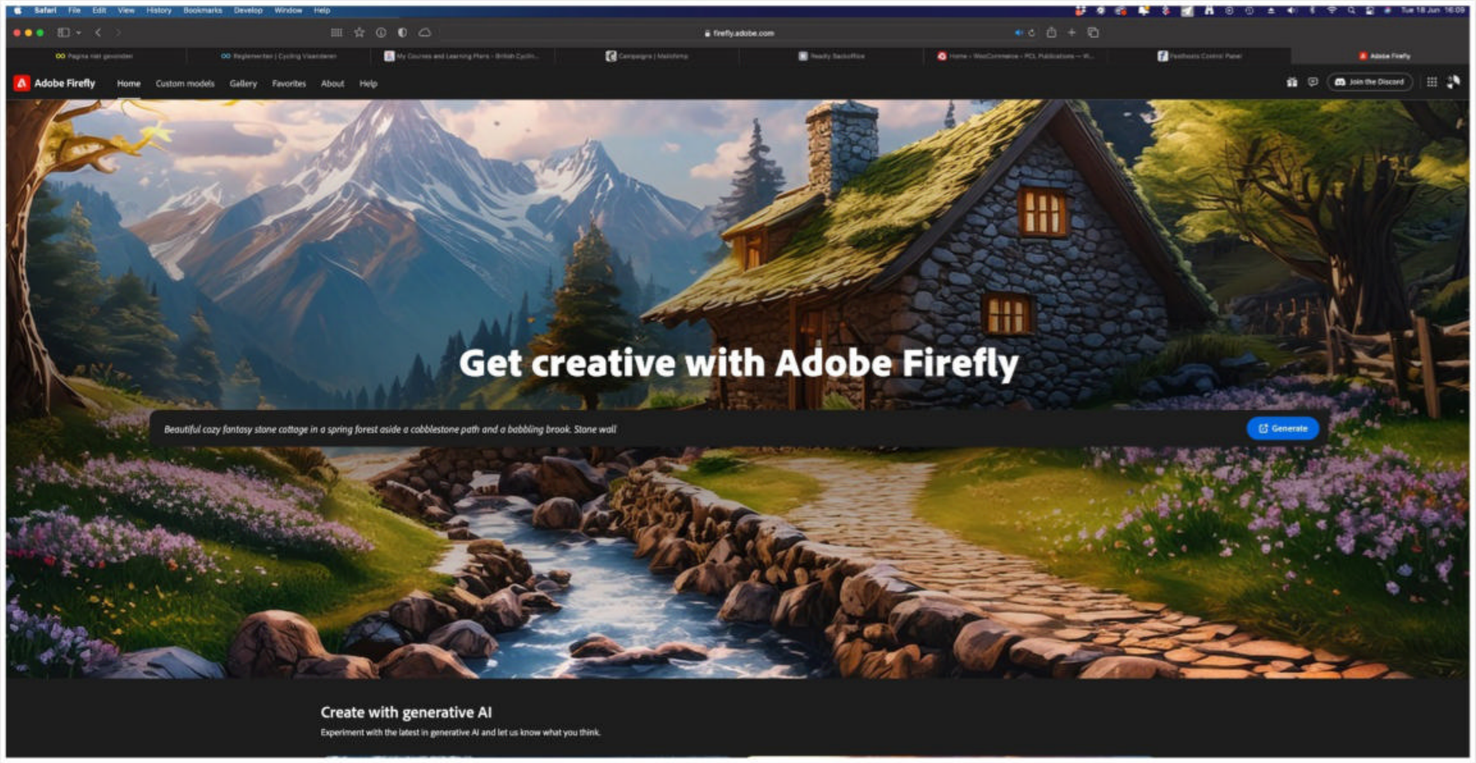
Adobe Firefly

Not wishing to be left out of the race to exploit the potential of Generative AI, in September 2022 Adobe announced its own system, called Firefly. It is a text-to-image system similar to the three market leaders, but in order to avoid potential legal entanglements it has been trained only on public-domain images, including 300 million images and videos from Adobe's own extensive stock library.

The Generative Fill and Generative Expand features that are included in the latest version of Photoshop are powered by Firefly, which is why you need to be connected to the Internet in order to use them; the image generation calculation is done on Adobe's servers, not on your own computer.

Firefly exists as a separate entity from Photoshop, and you can try it out by going to the website at https://firefly.adobe.com/

The big news is that as of March 2023, Adobe announced a Beta version of Adobe Photoshop that includes full integration with Firefly, allowing users to generate images directly within the familiar Photoshop interface. You can sign up for this Beta test using your Creative Cloud account, and download the new experimental version of Photoshop with Firefly to try for yourself.



Beautiful cozy fantasy stone cottage in a spring forest aside a cobblestone path and a babbling brook. Stone wall

Create with generative AI

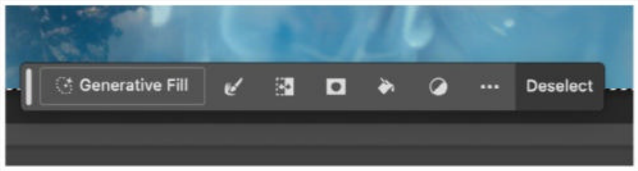
Experiment with the latest in generative AI and let us know what you think.

AI Integration In Photoshop

With the development and ultimately the integration of artificial intelligence into Photoshop playing an increasing role in our workflows, thus quickly accessing these time saving additions is of great importance. These new and sure to be added to AI features are available via the one click Contextual Task Bar, a tool that all users must learn to use to its full potential. Read on…

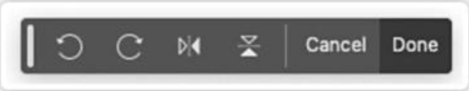
What and Where is the Contextual Task Bar?

The Contextual Task Bar is a handy floating menu that uses AI to provide users with the most relevant next steps in their workflow. In most occasions the bar will pop up in the middle of the screen. For instance, when you select an object, the Contextual Task Bar will appear on the canvas with a selection of tailored options for your next potential actions. What follows is a breakdown of the current features available.


Generative Fill
Deselect

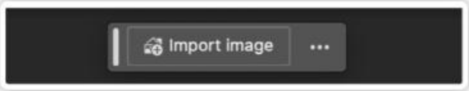
Transform Contextual Task Bar

Use this feature to to rotate the task bar itself in a counterclockwise and clockwise motion when the Transform bar is active.


Cancel
Done

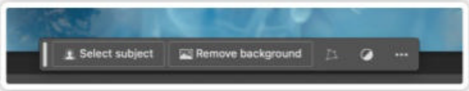
New document workflow

This task bar pops up when you open a new, blank document from the Photoshop home screen or from File > New.


Import image

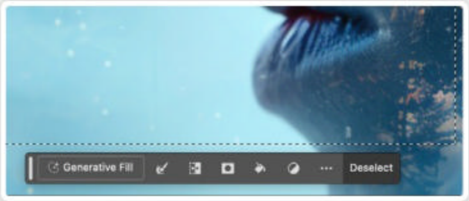
Open image/file workflow

This version of the task bar appears when you open an image or file from the home screen or from File > Open.


Select subject
Remove background

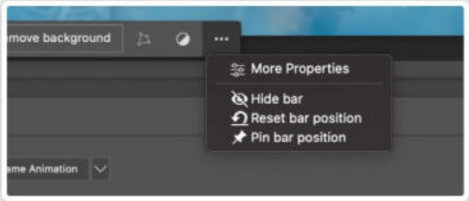
Selections workflow

This bar offers options to refine a selection or create a mask after you have made a selection. It also provides the option to use the Generative Fill feature once your selection has been made.


Generative Fill
Deselect

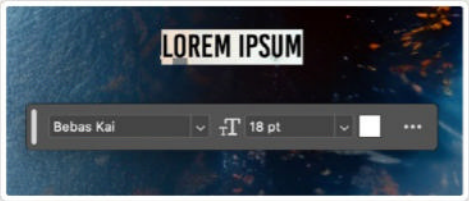
Additional Functions

By selecting the three-dot icon, users can access an extra options menu with the ability to hide, reset, and pin the task bars. These actions apply to all bars displayed.


move background
More Properties
Hide bar
Reset bar position
Pin bar position
ame Animation

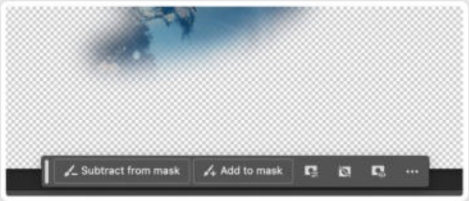
Type tool workflow

When you use the text tool to click or draw a text box on the canvas, this task bar will appear and enable you to modify font properties and text alignment, leading, and spacing.


LOREM IPSUM
Bebas Kai
18 pt

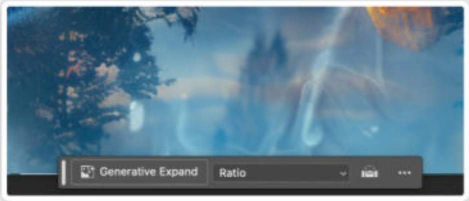
Masking workflow

Open the Select and Mask options to activate this bar and using to refine your mask by adding or subtracting from your masked area, view mode options, and modifying options for density and feather.


Subtract from mask
Add to mask

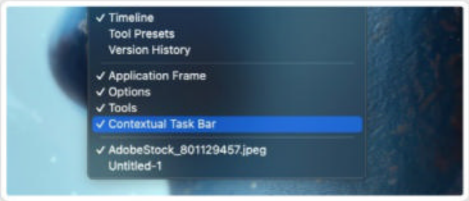
Generative Expand workflow

This bar appears when the Crop tool is used and offers options to straighten and adjust ratio. You also have an option to use the Generative Expand feature if the canvas is expanded, not cropped.


Generative Expand
Ratio

Disabling the Contextual Task Bar

To turn off the Contextual Task Bar and stop any further pop-up suggestions and workflow short cuts, simply go to Window > Contextual Task Bar and click disable, as it's enabled by default.

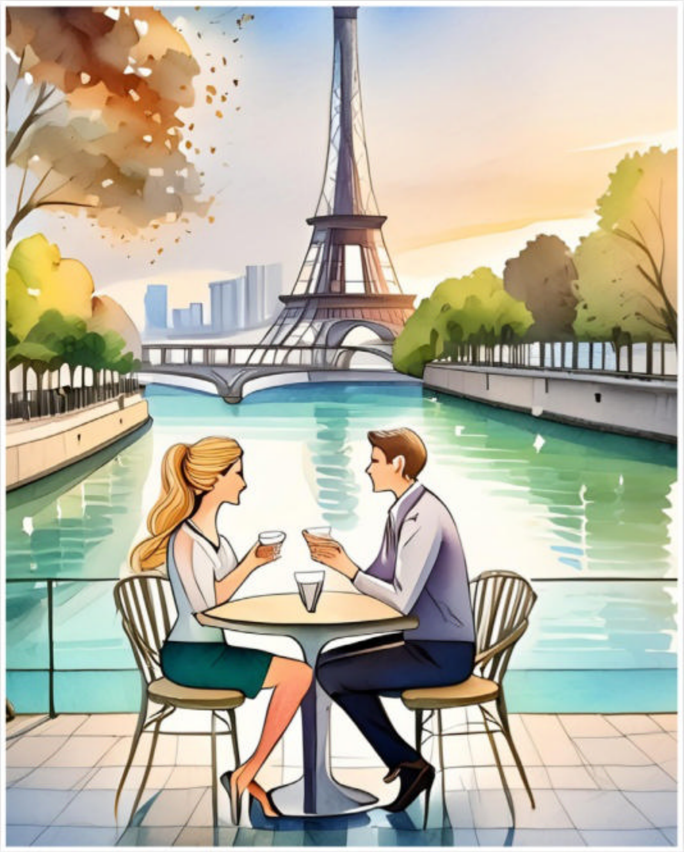

✓ Timeline
Tool Presets
Version History
✓ Application Frame
✓ Options
✓ Tools
✓ Contextual Task Bar
✓ AdobeStock_801129457.jpeg
Untitled-1

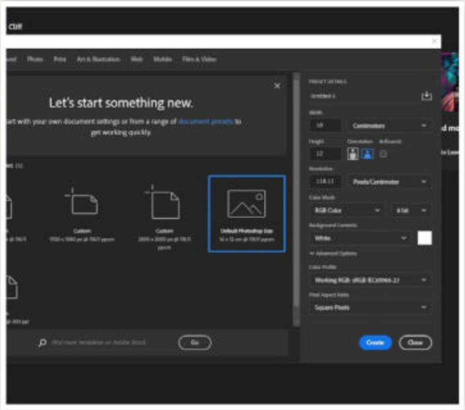
Using Generate Image in Photoshop

The addition of Firefly Generative AI to Photoshop opens up an exciting new world of creativity

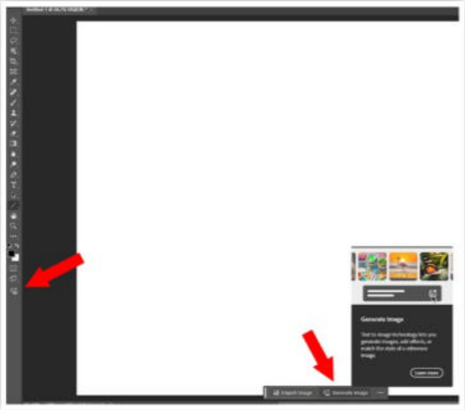
Firefly is what is known as a text-to-image Generative AI. What that means is that you can tell the system what image you want it to create using a short description in plain, natural language, called a "prompt". What happens next is massively complex, but in layman's terms, Firefly uses that description to choose elements from its vast database of images, and then synthesise them together to create a new image that will hopefully match what you were looking for. It can imitate many different art styles, from realistic-looking photos to simple line drawings, add a wide range of filters and effects, and the range of image subjects is limited only by your imagination and one obvious rule; at present, since Photoshop is not age-restricted, Firefly cannot be used to create nudity or sexual images.

It's also important to note that in order to use Firefly your computer needs to be connected to the Internet. The actual AI calculations take place on Adobe's servers, so the speed of operation is dictated not by the capabilities of your graphics card, but by the speed of your Internet connection.

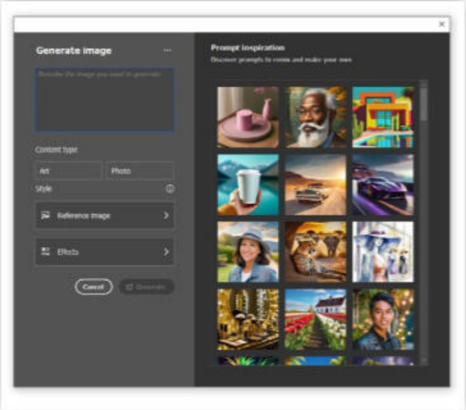



Let's start something new.
Create
Close

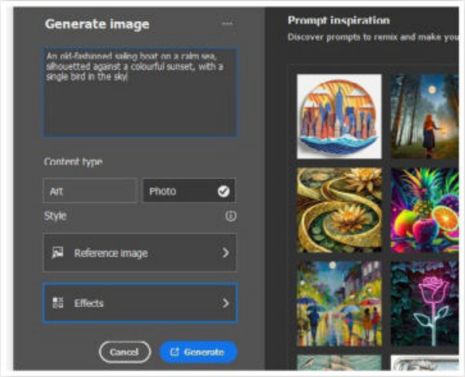
01 To get started, go to your File menu and select New, and create a blank page of whatever dimensions you want for your first image. We'll start with the default Photoshop New Document size, 16x12cm, in landscape format, click Create and your new document will launch.


Generate image

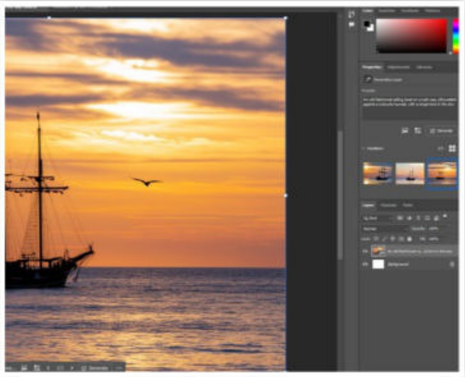
02 If you have the Contextual Taskbar active, you'll notice that it offers the option to Generate Image. Alternatively, you will see that there is a new tool that has been added to the bottom of your tool bar, also labelled Generate Image. Click on either of these.


Generate image
Prompt inspiration
Content type
Art
Photo
Style
Reference image
Effects
Cancel
Generate

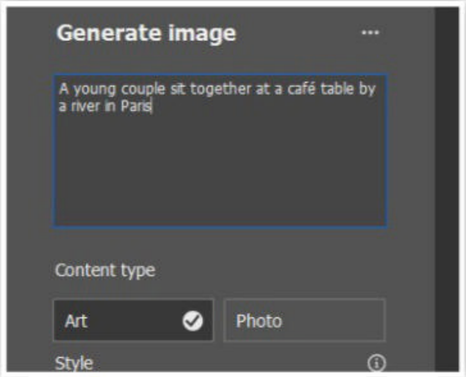
03 The new Firefly Generate Image screen will appear. At the top is a box to input your text prompt. Below that are two buttons to select either an artwork or a realistic photo style, and then there are two menus that we'll come to later. There is also a panel of sample images.


An old-fashioned sailing boat on a calm sea, silhouetted against a colourful sunset, with a single bird in the sky
Generate image
Prompt inspiration
Discover prompts to remix and make your
Content type
Art
Photo
Style
Reference image
Effects
Cancel
Generate

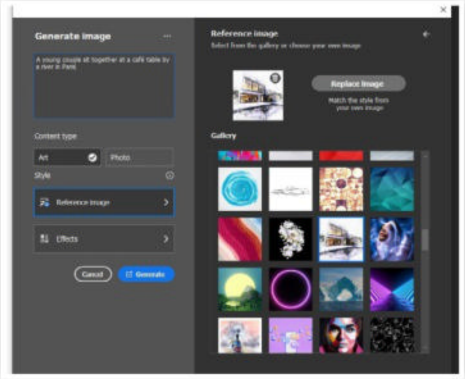
04 Let's give it a try. In the text box, type in "An old-fashioned sailing boat on a calm sea, silhouetted against a colourful sunset, with a single bird in the sky", and click on the Photo button. Ignore the other menus for now, and click Generate.



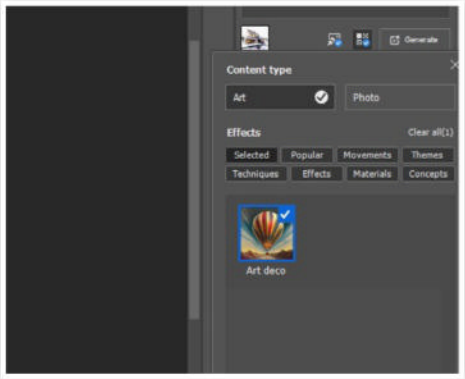
05 After a few seconds, your image should appear. On the right of the screen you'll see the Generate Layer properties menu, which offers three different variations of your generated image. If you don't like any of them, click the Generate button to run the same prompt again.


A young couple sit together at a café table by a river in Paris
Generate image
Content type
Art
Photo
Style

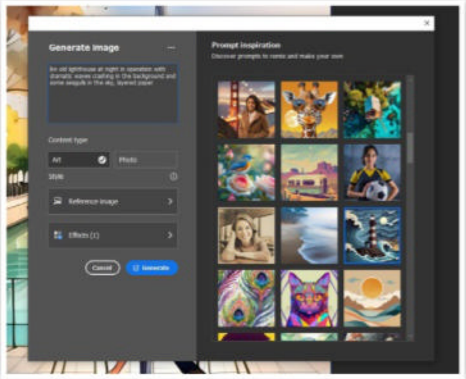
06 Next, let's try the Art style, and take a look at the Reference and Effects menus. Create a new file, this time in portrait format, click on Generate image, and in the prompt box type "A young couple sit together at a café table by a river in Paris". Click on the Art button.


Generate image
Reference image
Replace image
Gallery
Content type
Art
Photo
Style
Reference image
Effects
Cancel
Generate

07 Click on the Reference Image menu, and select one of the watercolour images. This tells Firefly that you want it to create the image in a watercolour style. In the Effects menu, click on Movements and Art Deco. You can add other effects, but let's keep it simple for now. Click on Generate.


Generate
Content type
Art
Photo
Effects
Clear all(1)
Selected
Popular
Movements
Themes
Techniques
Effects
Materials
Concepts
Art deco

08 Once the image has been generated, you can add more variations by playing with the small Reference Image and Style Effects buttons in the Generative Layer properties panel, and clicking on Generate to create more variations. There are thousands of combinations to choose from.

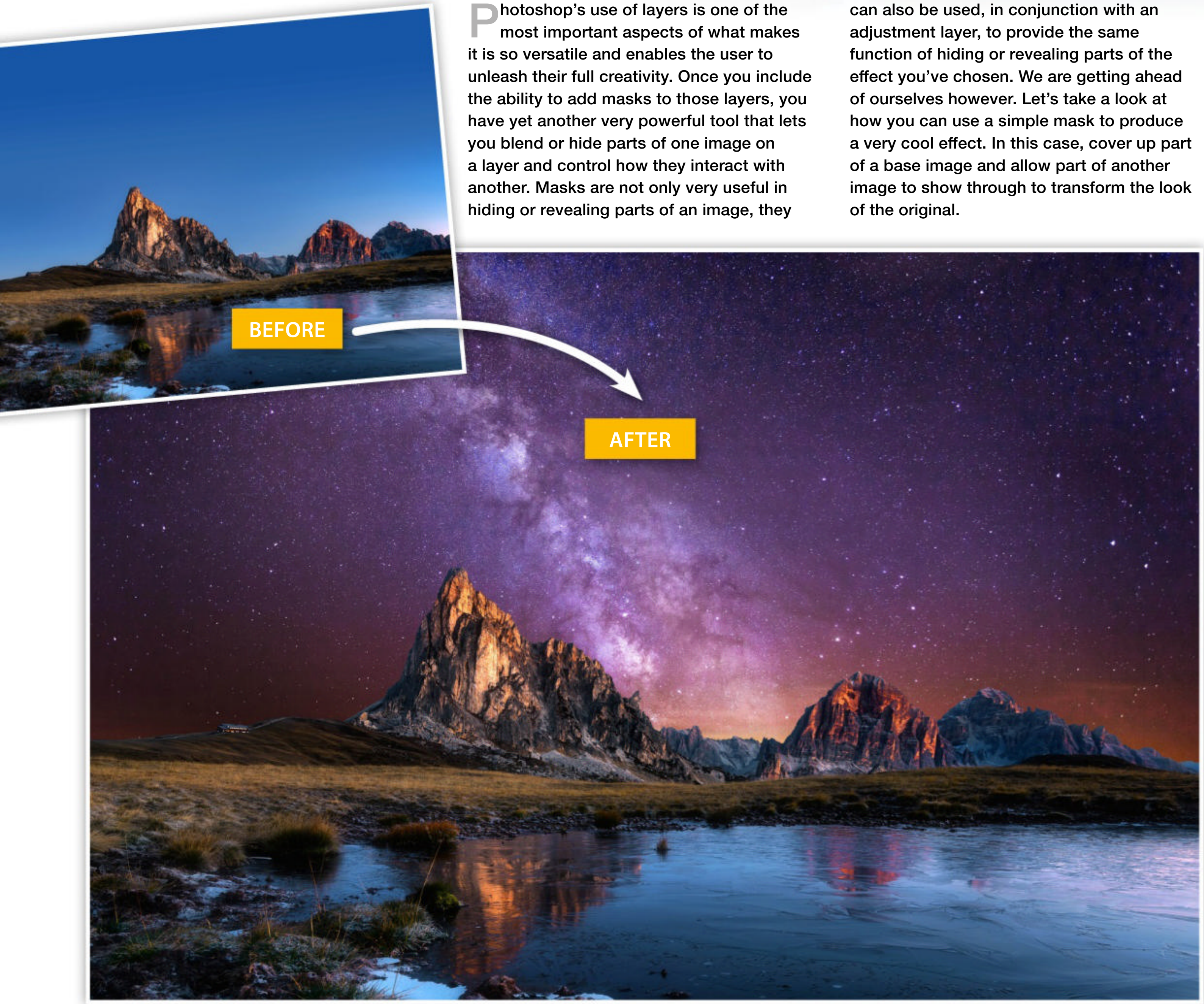

Generate image
Prompt inspiration
Content type
Art
Photo
Style
Reference image
Effects (1)
Cancel
Generate

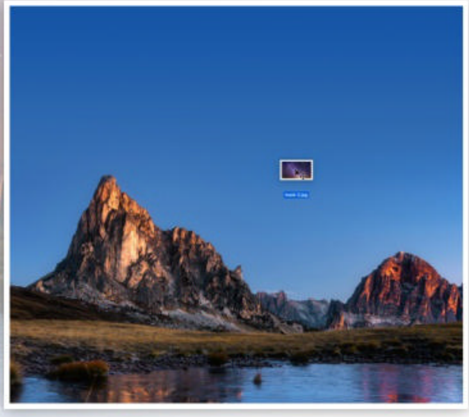
09 Firefly offers virtually limitless creations. Try your own prompts, and if you're stuck for inspiration, click on one of the Prompt Inspiration images on the right of the Generate Image interface. It will show you the prompt used to create that image, so you can remix it to your own style.

Your First Layer Mask

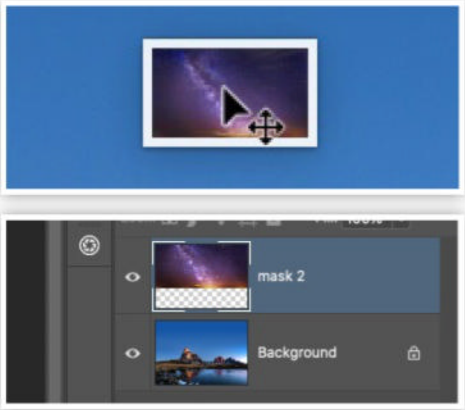
An introduction to one of the key ingredients of Photoshop work

Photoshop's use of layers is one of the most important aspects of what makes it is so versatile and enables the user to unleash their full creativity. Once you include the ability to add masks to those layers, you have yet another very powerful tool that lets you blend or hide parts of one image on a layer and control how they interact with another. Masks are not only very useful in hiding or revealing parts of an image, they can also be used, in conjunction with an adjustment layer, to provide the same function of hiding or revealing parts of the effect you've chosen. We are getting ahead of ourselves however. Let's take a look at how you can use a simple mask to produce a very cool effect. In this case, cover up part of a base image and allow part of another image to show through to transform the look of the original.

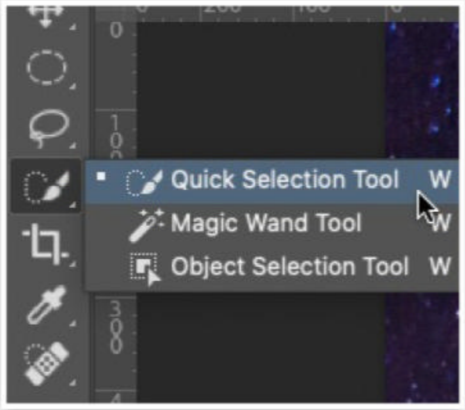




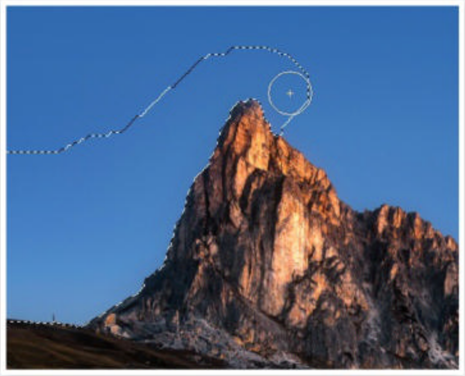
01 We have opened an example image of a beautifully scenic lakeside mounain scene. As lovely as this image is, we want to be able to replace the sky with something a little more exciting, and masking is a method that allows us to do just that.



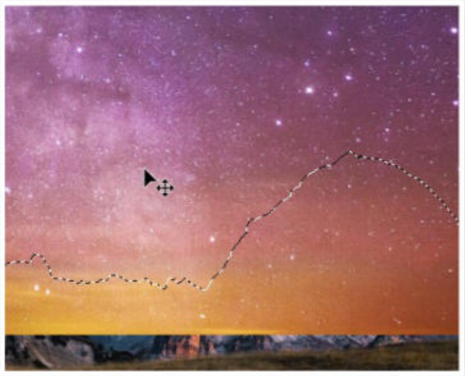
02 We have another photo with a great night sky that should work well with our original mountain image. We simply drag and drop the sky image onto the active document, which then appears on its own layer. We then scale the image so that the sky fills most of the frame.



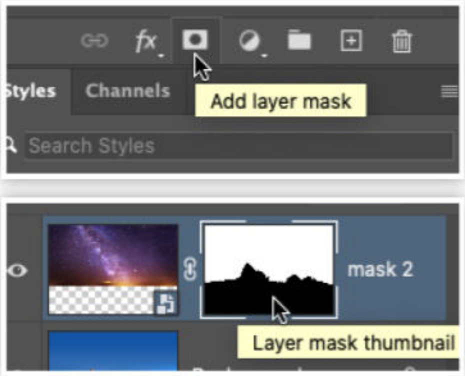
03 Making the new layer invisible for a moment, we make the Background image active by clicking its layer, then go over to the toolbar and choose the Quick Selection Tool (W). This tool allows for simple area selection based on detecting contrasting edges.



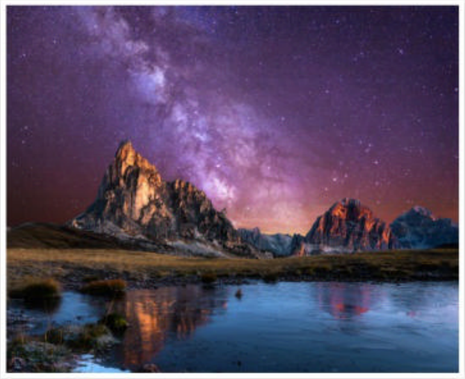
04 Because the outline of the mountain against the featureless sky is very well defined, the Quick Selection Tool can easily select the sky alone. All you do is click the tool on an area of sky and then slowly drag the cursor around the sky area, selecting more sky as you go.



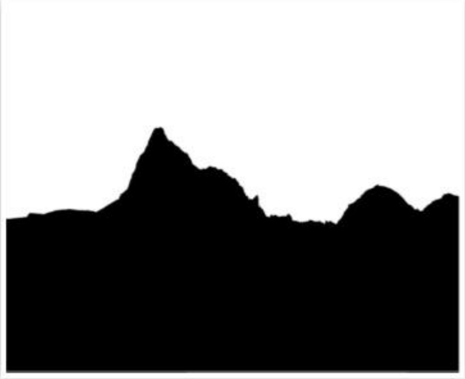
05 Make the top layer visible and active again and you will notice you r active selection that encloses the sky area (indicated by the black and lines known as marching ants) is now overlaid. We want to turn this area into a mask that hides the area outside the selection.



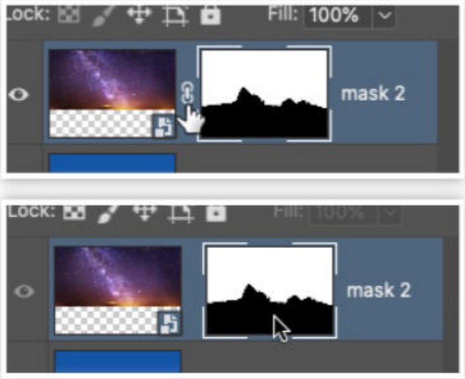
06 Keeping the selection active, go down to the layer options palette and choose Add Layer Mask. When you do, a mask will be added to the top layer in the shape of the selection you made. The area inside the selection is white, the area outside the selection is black.



07 Any white masked area allows that part of the layer be seen, whilst any black part of the mask hides that part of the layer. The result is that only the interesting sky area of the top layer is visible, while the featureless sky is hidden on the layer below.



08 To view the mask on its own, hold the Alt key on your keyboard and left-click on the mask itself. The Quick Selection Tool made a decent job of discerning the edge between the mountain and the featureless sky. Alt + left-click on the mask to return to normal view.

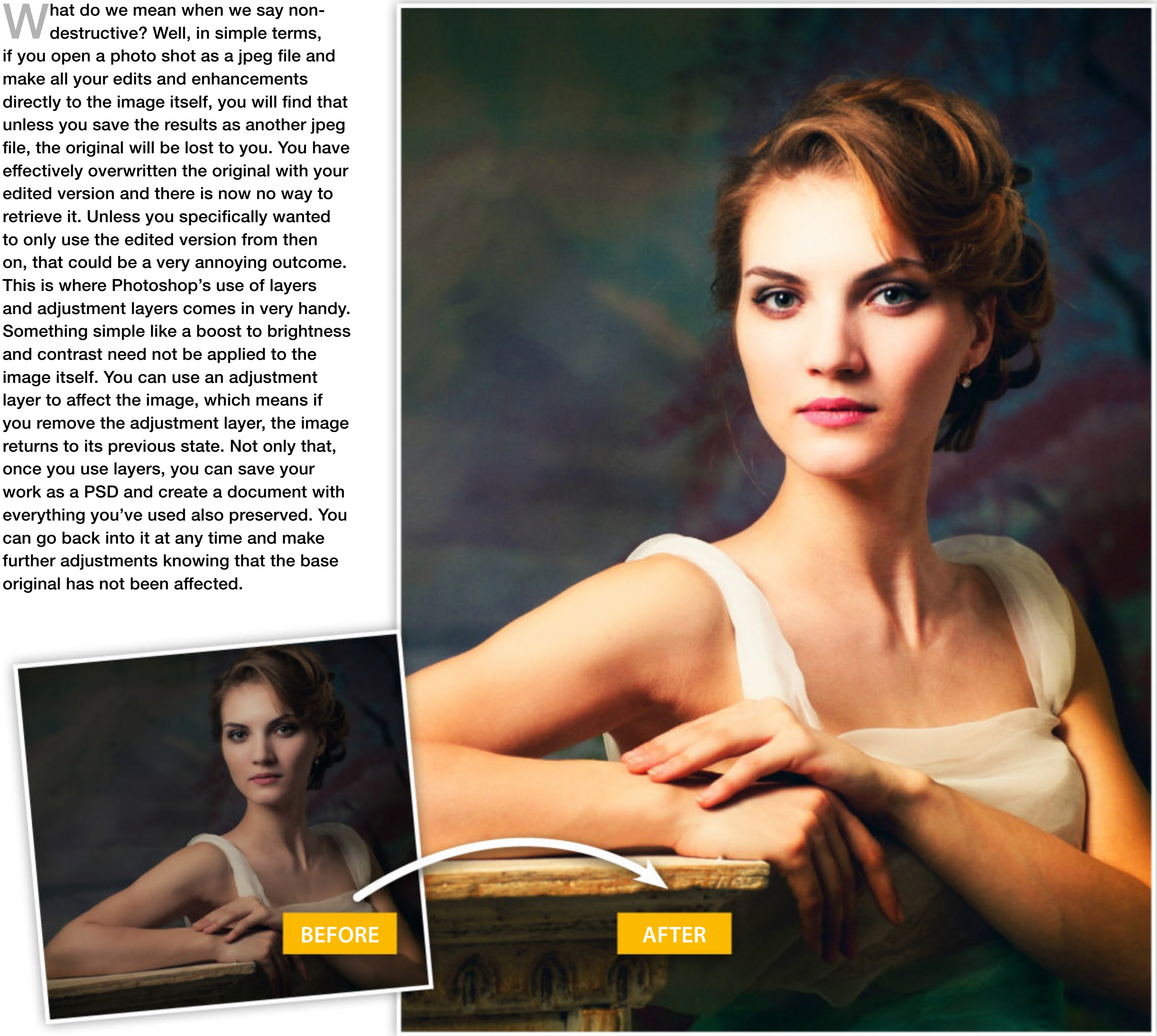


09 To move the sky in the top layer around, but keep the mask in the correct position, you can click on the small Chain link icon between the layer thumbnail and the layer mask thumbnail. This unlinks the image from the mask so either can move without affecting the other.

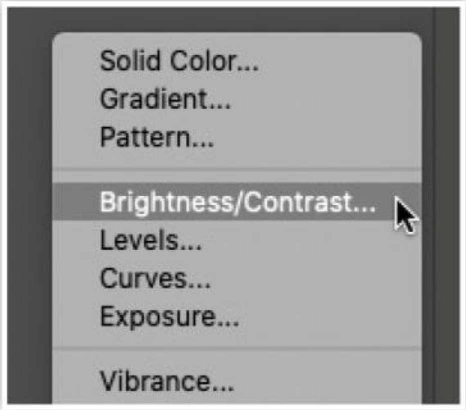
Your First Set of Adjustments

The use of adjustments in Photoshop are another key aspect of non-destructive editing

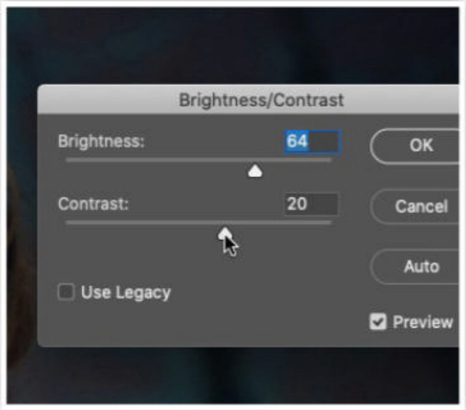
What do we mean when we say non-destructive? Well, in simple terms, if you open a photo shot as a jpeg file and make all your edits and enhancements directly to the image itself, you will find that unless you save the results as another jpeg file, the original will be lost to you. You have effectively overwritten the original with your edited version and there is now no way to retrieve it. Unless you specifically wanted to only use the edited version from then on, that could be a very annoying outcome. This is where Photoshop's use of layers and adjustment layers comes in very handy. Something simple like a boost to brightness and contrast need not be applied to the image itself. You can use an adjustment layer to affect the image, which means if you remove the adjustment layer, the image returns to its previous state. Not only that, once you use layers, you can save your work as a PSD and create a document with everything you've used also preserved. You can go back into it at any time and make further adjustments knowing that the base original has not been affected.



01 Let's take a fairly typical example as our first step into adjustment layers. We have a photograph of a young lady taken indoors. The image is a bit underexposed and lacking any real punch and colour. That's ok, we can use adjustment layers to help us.



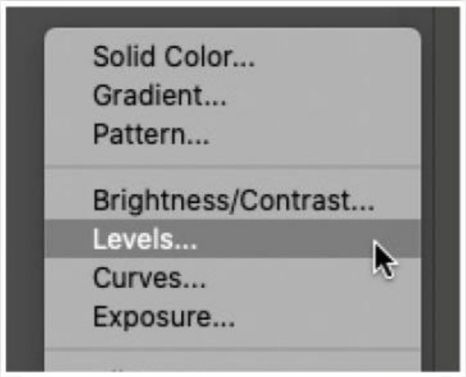
02 The image can remain as a locked Background layer. If you go to the Layer Options panel, click on the Create New Fill or Adjustment Layer button and choose Brightness/Contrast from the list that appears. An adjustment layer will now appear above your main image.



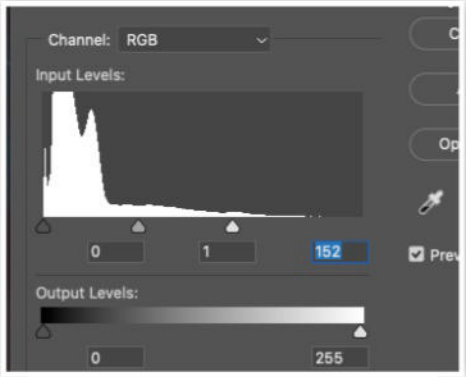
Brightness: 64
Contrast: 20
☐ Use Legacy
☑ Preview

03 If the Properties panel does not automatically appear, simply double-click the adjustment layer thumbnail (not the mask) and the properties panel will appear for that particular adjustment; in this case, two sliders that control Brightness and Contrast.

04 This image looks better after a +50 boost to the Brightness along with a small -8 adjustment to the Contrast. The problem is that the darkest areas still look too black with not much visible detail. There is another adjustment that can help out in this case.

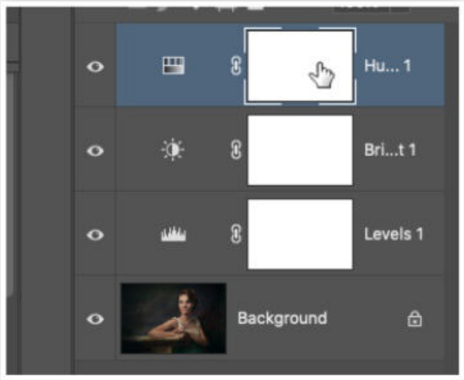


05 Click on the Create New Fill or Adjustment Layer again and choose Levels to add a Levels 1 adjustment above Brightness/Contrast 1. Levels gives you more control, of any shadows, midtones and highlights in the image, than Brightness and Contrast alone can offer.

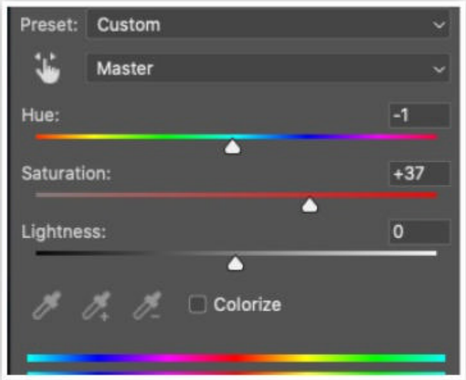


Channel: RGB
Input Levels: 0 1 152
Output Levels: 0 255
☑ Prev

06 Click on the middle slider and move it to the left, all the middle tones will get lighter. You can also move the Black Point slider below slightly to the right, to remap solid black to progressively lighter tones. The darker areas should now show more detail.

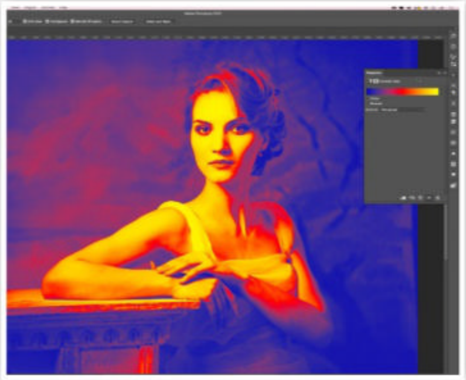


07 Now we can address the colour in the image. At the moment, all the colours look a little subdued. We can boost the vibrancy of the image with another adjustment layer. This time, choose Hue/Saturation and add that to the top of the growing layer stack.



Preset: Custom
Master
Hue: -1
Saturation: +37
Lightness: 0
☐ Colorize

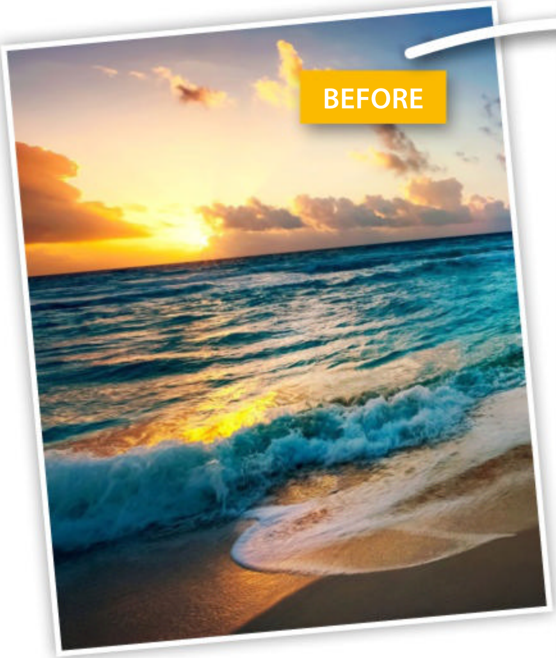
08 How much you decide to boost saturation is purely down to personal taste. In this case, the Hue has a +5 adjustment, Saturation is +49 and Lightness +6. Because these adjustments are all on layers, they can be modified or removed at any time with no issue.

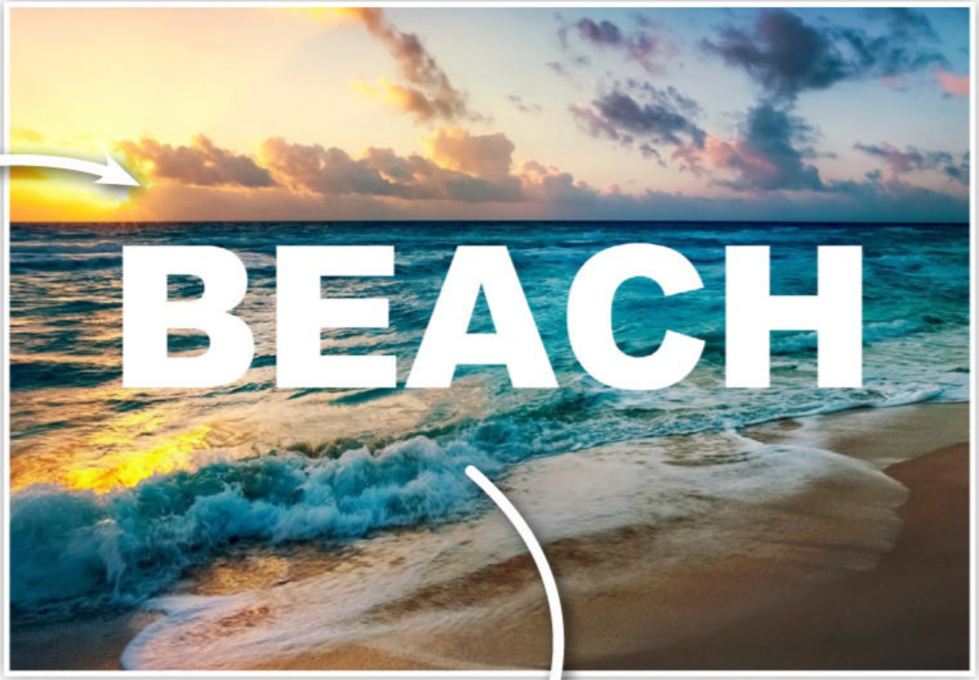


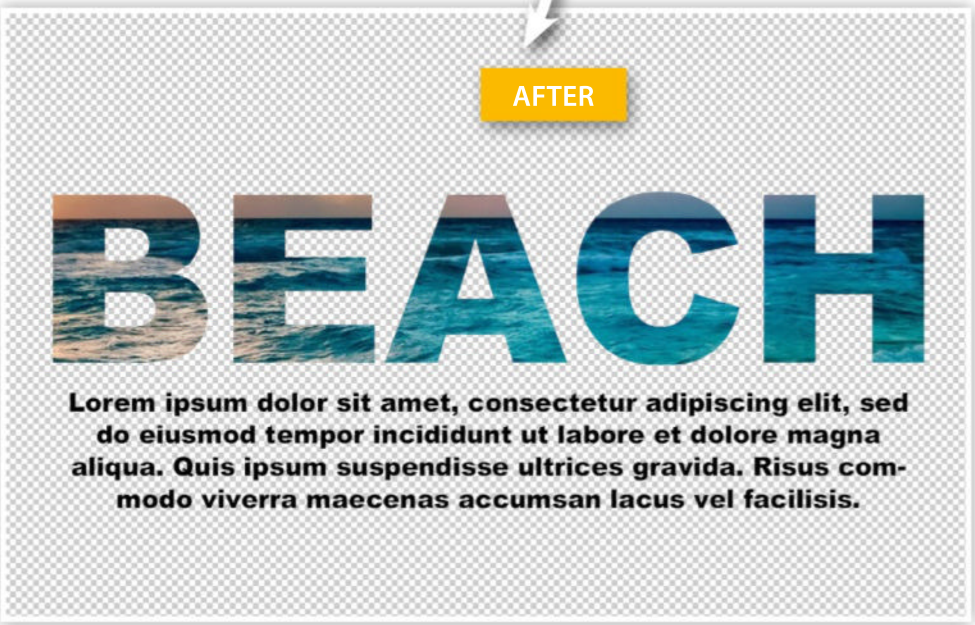
09 You aren't limited to standard adjustments either. If you wish, you can experiment with Things like Gradient Map. This uses several colours initially, to replace the lightest and darkest tones in the photo. In this case dark purple blends into red, then orange, then bright yellow.

Your First Type Tool Project

Get to know what the various Type Tool options can do to really lift your artwork

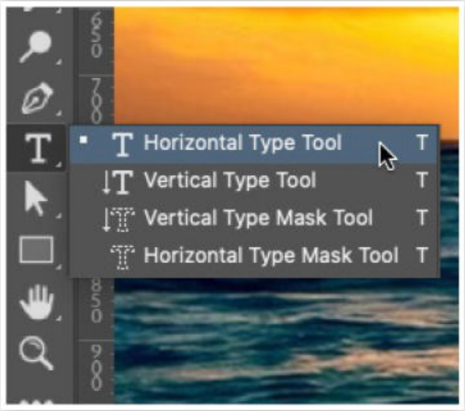


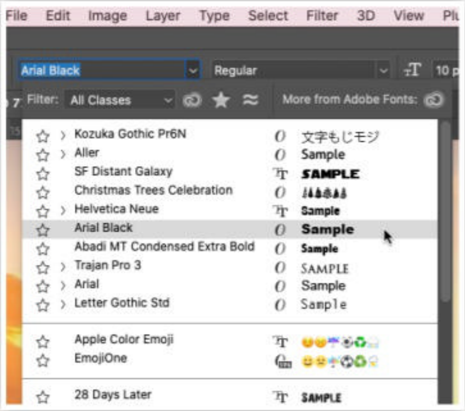


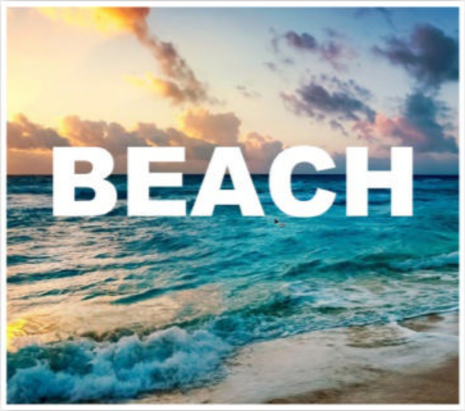


Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Quis ipsum suspendisse ultrices gravida. Risus commodo viverra maecenas accumsan lacus vel facilisis.

The introduction of text and type effects in Photoshop now means that you can create cool logos or even documents with paragraphs of text in them, if you want. Although you don't have the more complex control of text that you might have in desktop publishing programs such as InDesign, you can still produce simple text layouts, and other effects with relative ease, thanks to a set of useful tools and text controls. You can produce normal horizontal text and vertical text if required, and you can also use both vertical and horizontal text to create masks. The only limiting factor is the number of fonts you carry on your system. The more fonts you have, the more choice you have.


Horizontal Type Tool T
Vertical Type Tool T
Vertical Type Mask Tool T
Horizontal Type Mask Tool T

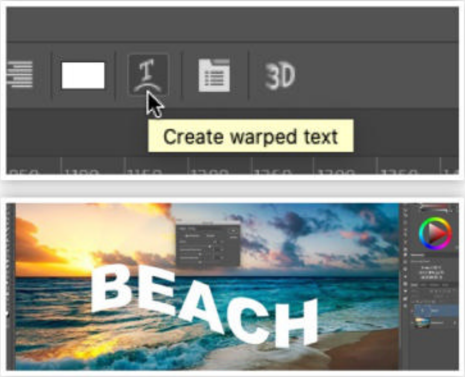

File Edit Image Layer Type Select Filter 3D View
Arial Black
Regular
Filter: All Classes
More from Adobe Fonts:
Kozuka Gothic Pr6N
Aller
SF Distant Galaxy
Christmas Trees Celebration
Helvetica Neue
Arial Black
Abadi MT Condensed Extra Bold
Trajan Pro 3
Arial
Letter Gothic Std
Apple Color Emoji
EmojiOne
28 Days Later
Sample

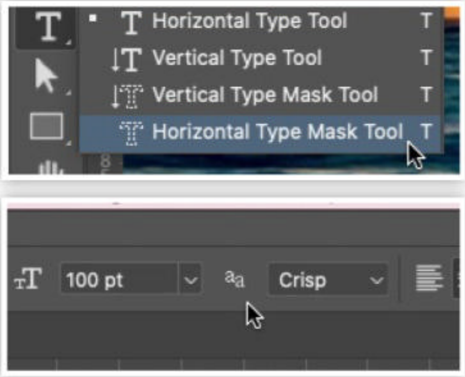


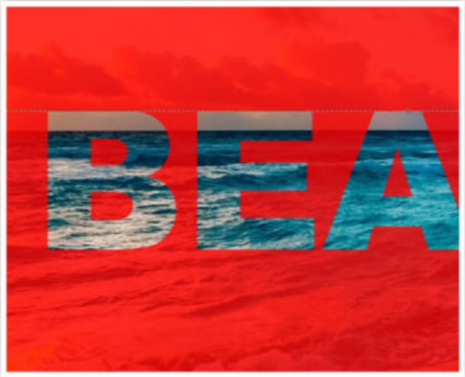
01 Having opened an image, in the form of a photo of a sunset beach, we want to incorporate it with some text in order to use it as a title graphic. To access the Type tools, we need to go to the toolbar on the right and click on the Horizontal Type Tool (T).

02 When you click on the Type tool, your options menu at the top of your screen will reflect what is available for that specific tool. In this case, you can choose your font, the weight of that font and the size you want it to be, along with some other basic options.

03 If you drag an area with the Type tool on your image, it will automatically create a new text layer and then display some default text to show you what it looks like in your chosen font and size. We can then type in whatever text we want to use; we have simply typed 'BEACH'.


3D
Create warped text
BEACH

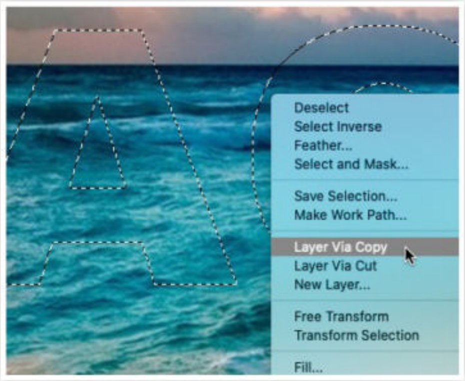

Horizontal Type Tool T
Vertical Type Tool T
Vertical Type Mask Tool T
Horizontal Type Mask Tool T
100 pt
Crisp

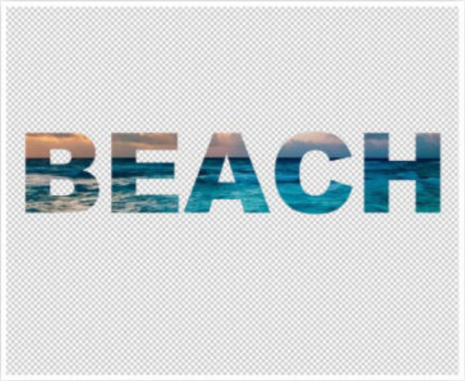


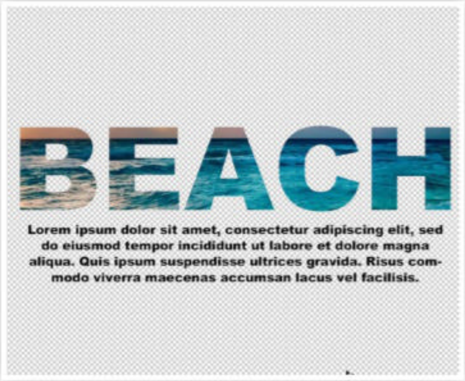
04 If you highlight your text, you can add some Warp Text effects by clicking on the icon in the options menu. Here, you can choose from a number of effects such as Arc, Bulge, Fisheye and Flag. Our example is a simple Wave effect with sliders to control Bend and Distortion.

05 That was one option. Now, to use text to create a mask, go to the toolbar again and, this time, choose the Horizontal Type Mask Tool (T). We have dragged out a text box over the flowers and typed the word 'BEACH' again in large text. We can move/scale the text box if necessary.

06 You will see that the area inside the text shows the image clearly. Anything shown that is outside the text is currently coloured red, which means when you move on to the next stage of the masking process, using this text mask, it will not be selected.


Deselect
Select Inverse
Feather...
Select and Mask...
Save Selection...
Make Work Path...
Layer Via Copy
Layer Via Cut
New Layer...
Free Transform
Transform Selection
Fill...



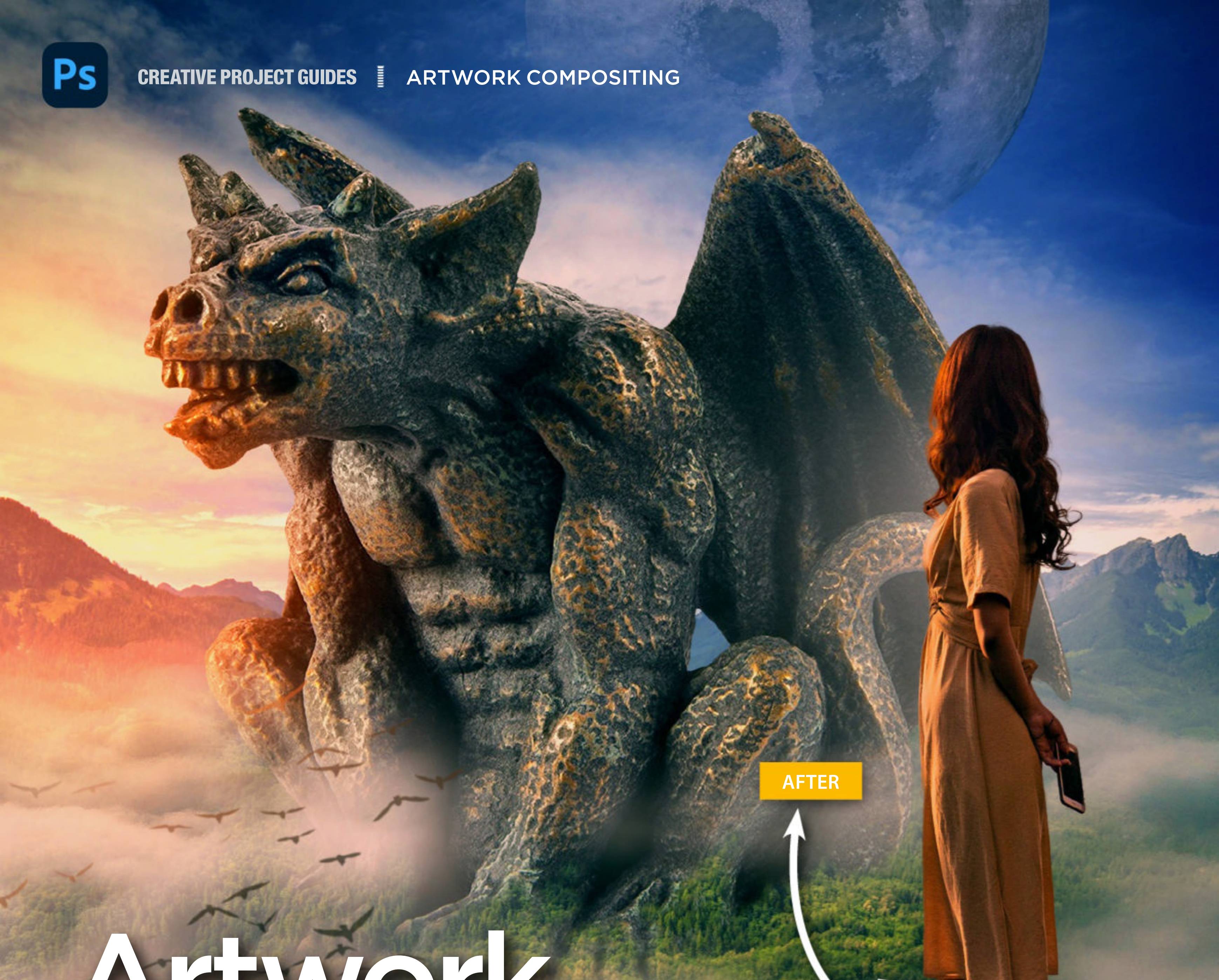


Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Quis ipsum suspendisse ultrices gravida. Risus commodo viverra maecenas accumsan lacus vel facilisis.

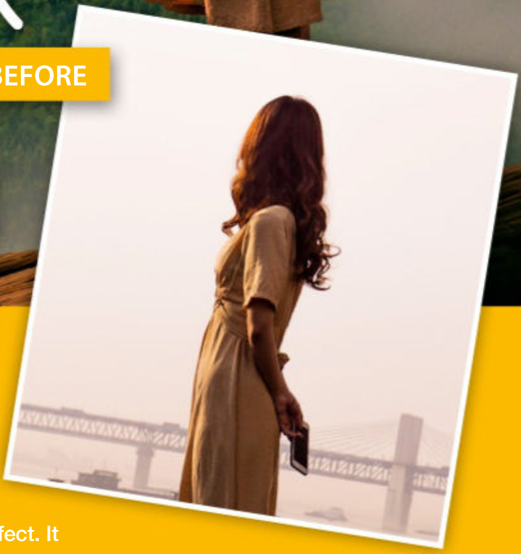
07 Click on the Commit Changes button, the text will turn into an active selection. At this point, you have a couple of options. You can click on a selection tool like the Lasso Tool, right-click the selection, then choose Layer Via Copy to copy the area inside the text to a new layer.

08 If you prefer, you can go to the layer options panel and choose Add A Mask. This will mask the entire image of the beach scene, leaving only the area inside the selection visible. When masking, remember that white reveals and black conceals.

09 As mentioned, you can also create paragraphs of text by dragging out a text box of the size you want. Placeholder text will appear in the box and you can then use the Character and Paragraph properties to format your text to suit your preferences.

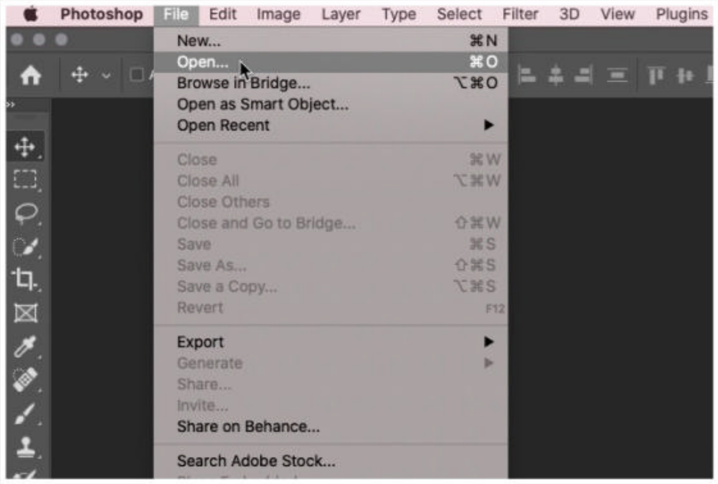


Artwork Compositing



How to incorporate multiple image elements into a unique piece of artwork

If there is one area that really helps artists to show off their skills, it is in the creation of unique images and fantasy artworks. Websites like DeviantArt and Pixabay are full of images that have been assembled in Photoshop, using many disparate components to create a final, cohesive end result. Part of the attraction of those websites is that artists and photographers create content and allow others to download their images and use them for their own artworks. If you find yourself wanting to create your own brand new fantasy image, then Photoshop is perfect. It lets you put each image element on its own layer and with some careful editing and masking, you can blend them to produce a final image worthy of any fantasy genre. So why don't we have a go right now? In our example, we've downloaded a number of free images which we are going to assemble into a final artwork.


Photoshop
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close Others
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Save a Copy... ⌥⌘S
Revert F12
Export ▶
Generate ▶
Share...
Invite...
Share on Behance...
Search Adobe Stock...

01 Let's kick off the process by firing up Photoshop and from the file menu selecting File > Open. Navigate to where your images are stored. Our base image is a jpeg file called 'landscape'. If you double-click your image or click the Open button, the image will open in Photoshop as a new document.

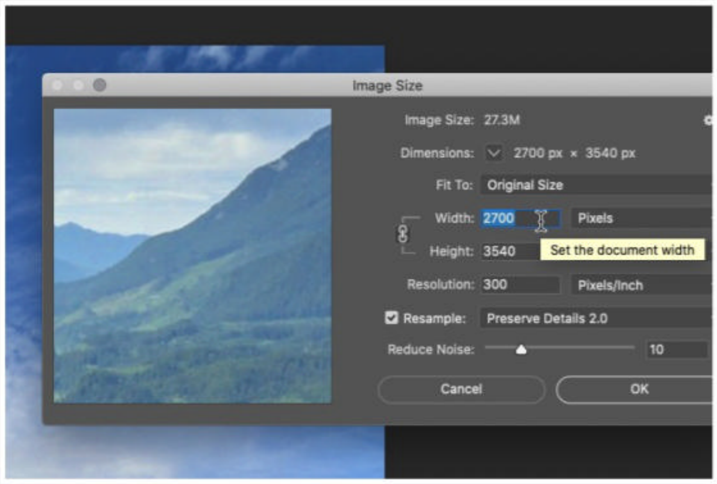


Image Size

Image Size: 27.3M

Dimensions: 2700 px × 3540 px

Fit To: Original Size

Width: 2700 Pixels

Height: 3540

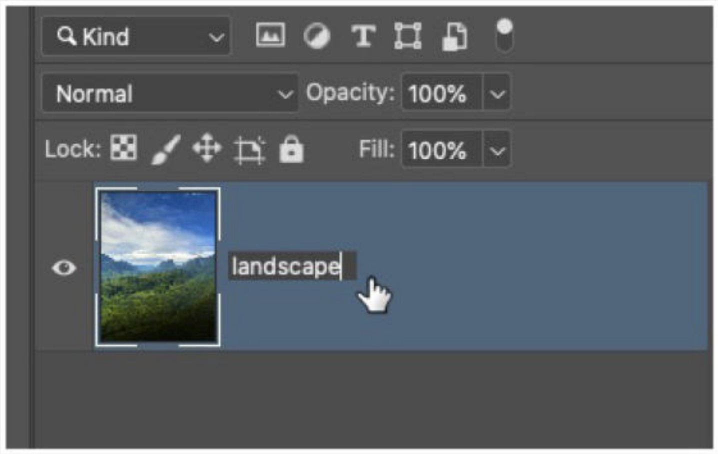
Resolution: 300 Pixels/Inch

☑ Resample: Preserve Details 2.0

Reduce Noise: 10

Set the document width
Cancel
OK

02 Our main background image, sourced from Pixabay, is 2700 pixels wide x 3540 pixels high. Any brushes and other effects used in this document will be sized according to the scale of this image. If you're using other images of different sizes, scale your brushes proportionally to your image if needed.


Kind

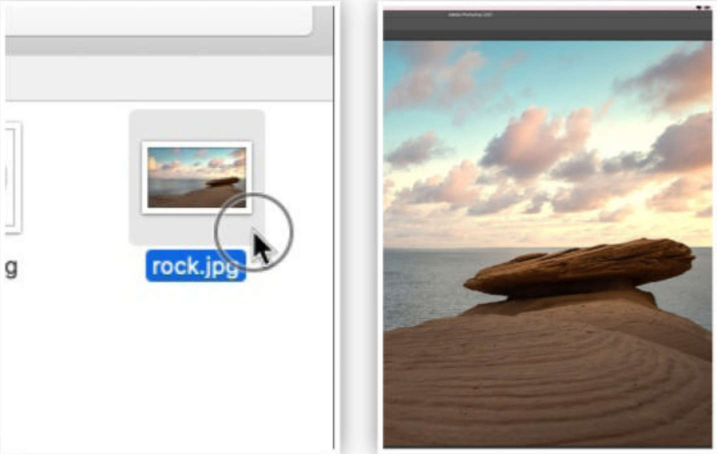
Normal

Opacity: 100%

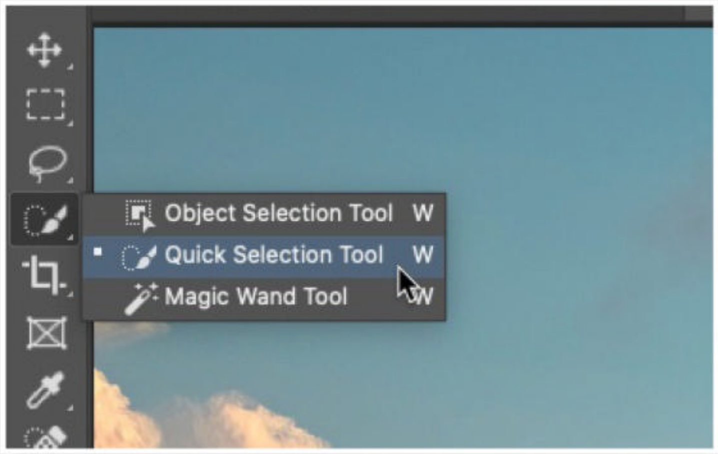
Lock:

Fill: 100%

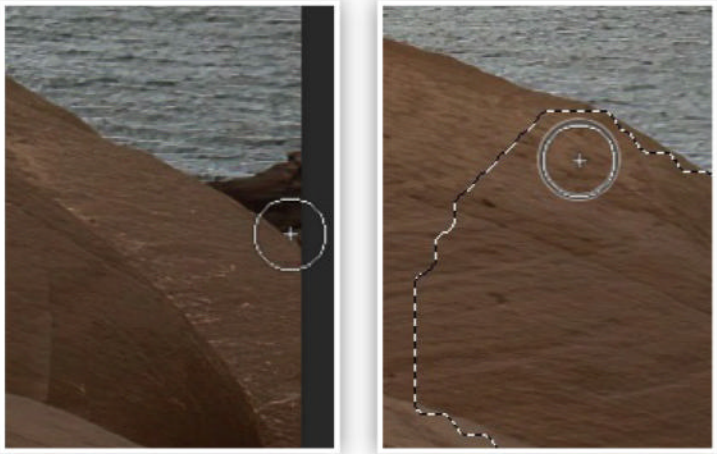
03 This layer is named 'landscape'. It makes sense to name all your layers as you create them, just so you don't lose track of all the elements. More complex creations in Photoshop can use many layers and adjustments, so be aware of this as you proceed.



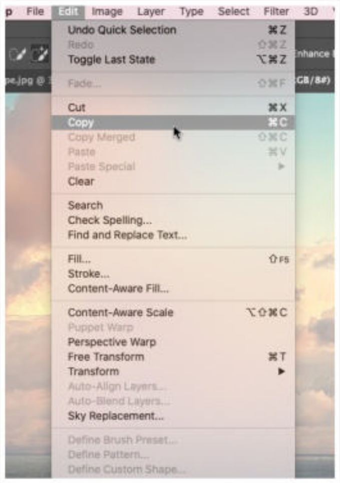
04 Now we need to start bringing in the various image elements needed in this creation. A rocky outcrop is needed as our foreground, so we need to go to File > Open, and navigate to our foreground image named 'rock'. This can be double-clicked to open it in its own window in Photoshop.

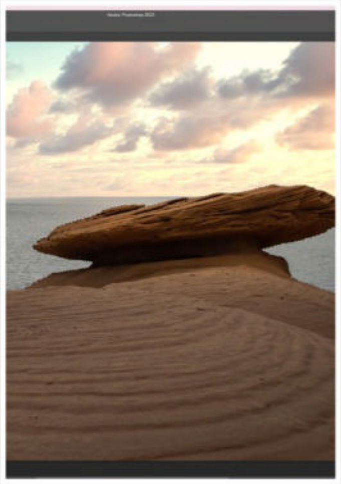

Object Selection Tool W
Quick Selection Tool W
Magic Wand Tool W

05 The part of the image that interests us is just the rock foreground. The sea and sky are not needed. This means we need to select just the rocky area. There are a number of ways you can do it, but it's probably easiest to go to the toolbar and choose the Quick Selection Tool (W).

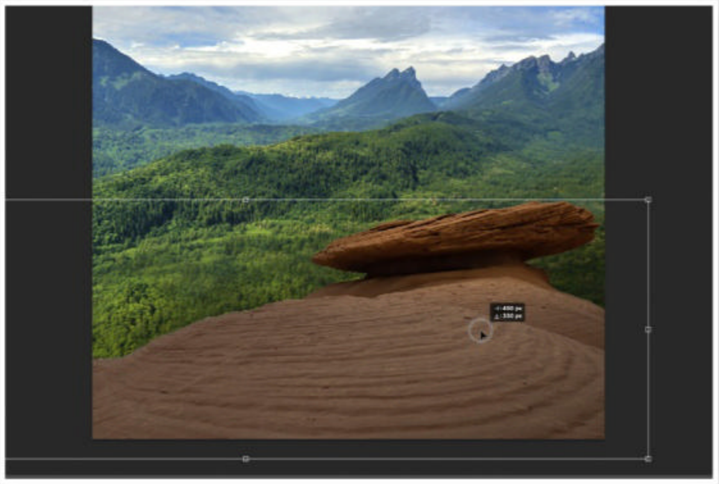


06 With the tool selected, and using a relatively small brush size of 50 pixels, you can click on the rock foreground and start to drag the selection tool across all of the rocky areas. Because there is sufficient contrast between the rock and the sea and sky, just the rock is selected.

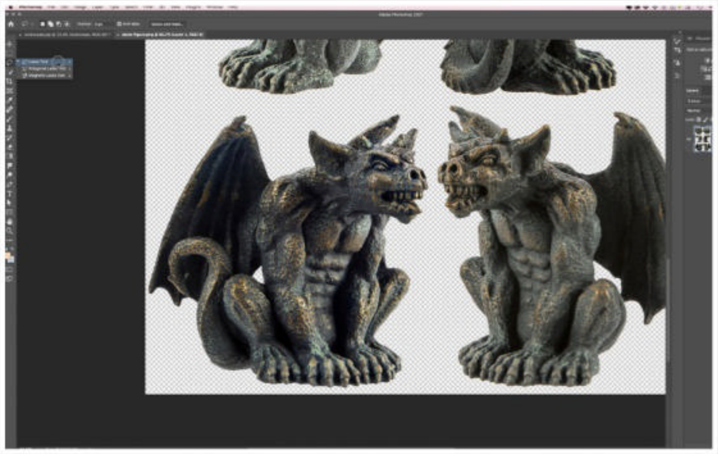

File
Edit
Image
Layer
Type
Select
Filter
3D
Undo Quick Selection ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...
Auto-Blend Layers...
Sky Replacement...
Define Brush Preset...
Define Pattern...
Define Custom Shape...



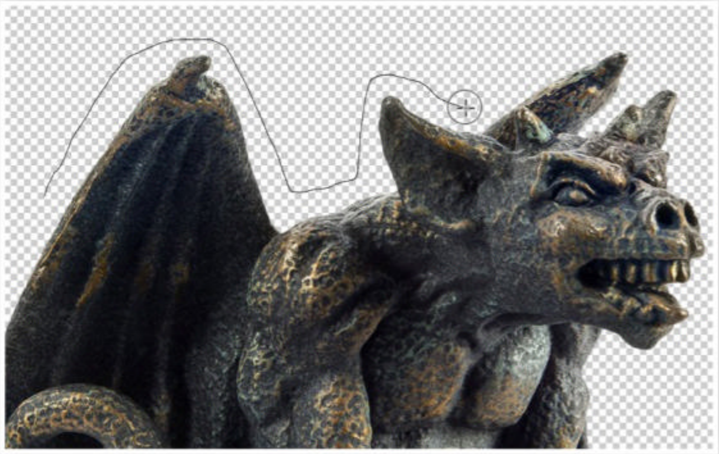
07 When you have all the foreground rock selected, you can copy the pixels within the selection by going to Edit > Copy or pressing Cmd + C. This copies the selected area to the clipboard. Click on the document tab of your original 'landscape' image to make it the active window.



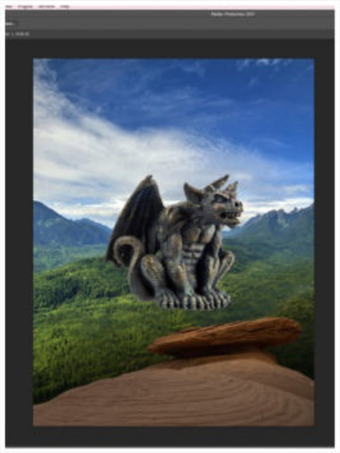
08 Now you can either go to File > Paste or press Cmd + V. This pastes the rock image you selected into your document. Notice that a new layer will be created for it. You can name the layer 'rock'. We positioned the image at the bottom of the document to create an outcrop overlooking the scene.

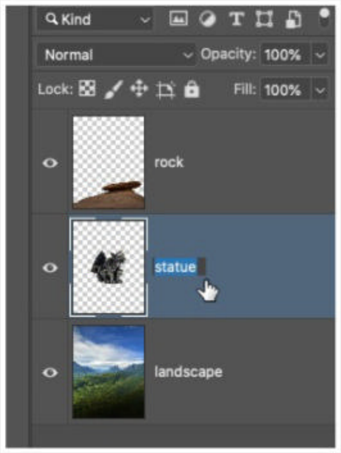


09 Now we can continue to bring other image elements into the document. Go to File > Open and navigate to your next image element. We have a series of stone figures which have already been cut out by its author. We prefer the statue down in the lower left of the file.

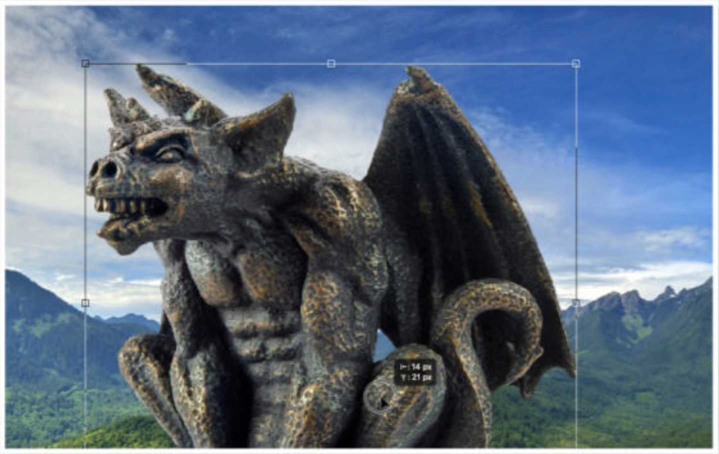


10 Because the statue is already on a transparent background, we can simply pick the Lasso Tool (L) and draw around it so it is completely enclosed by a selection. Then you can either go Edit > Copy again or press Cmd + C. The statue will be copied to the clipboard.

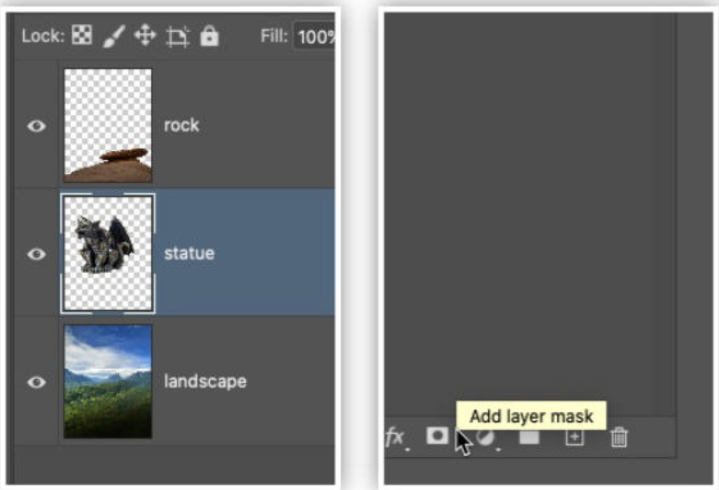



Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
rock
statue
landscape

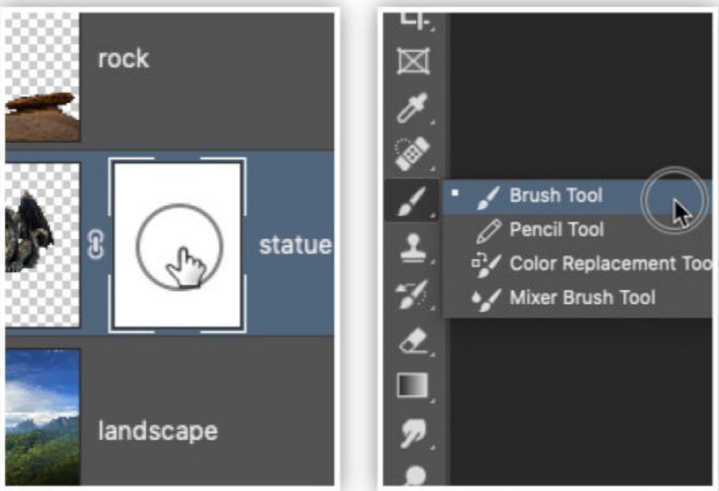
11 Back to the work in progress and press Cmd + V to paste the statue into the document. Make sure this new 'statue' layer is between the 'rock' and 'landscape' layers. We prefer the statue to be facing the other way, so we can go to Edit > Transform > Flip Horizontal to have it face the other way.



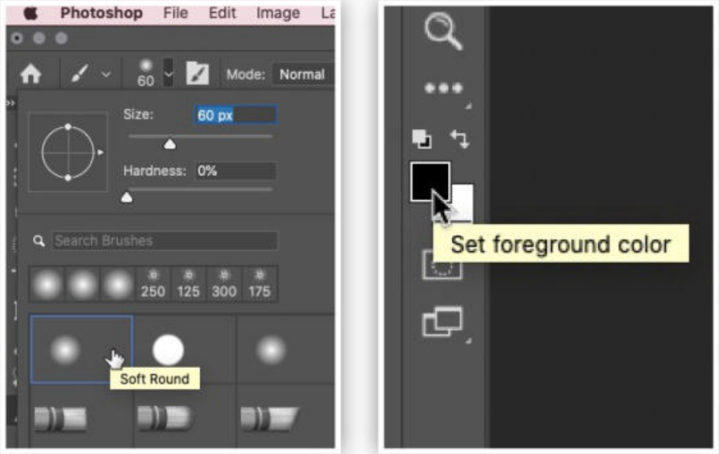
12 Next, the statue needs to be scaled up a bit. With the 'statue' layer active, go to Edit > Transform > Scale. Control points will appear around the image which you can drag to enlarge the statue. We scaled it up and placed it slightly to the left of the frame.


Lock:
Fill: 100%
rock
statue
landscape
fx
Add layer mask

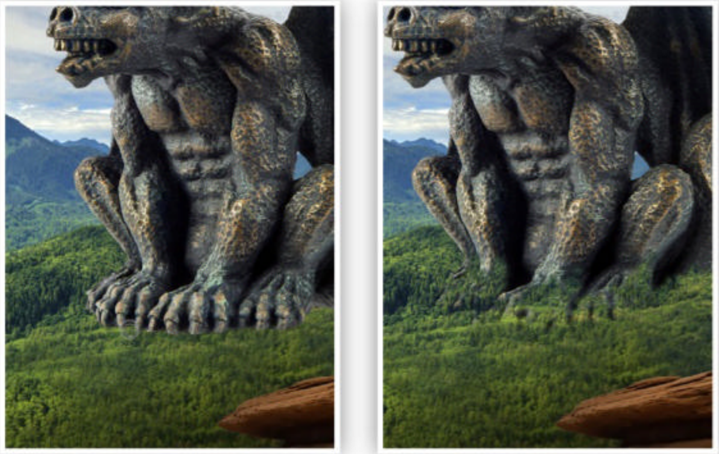
13 We want the statue to appear as if it is some giant artefact dwarfing the surrounding landscape. We also want it to look like it has foliage growing up around it, rather than looking like it's just been dropped there. From the Layer Options panel, choose Add Layer Mask.


rock
statue
landscape
Brush Tool
Pencil Tool
Color Replacement Too
Mixer Brush Tool

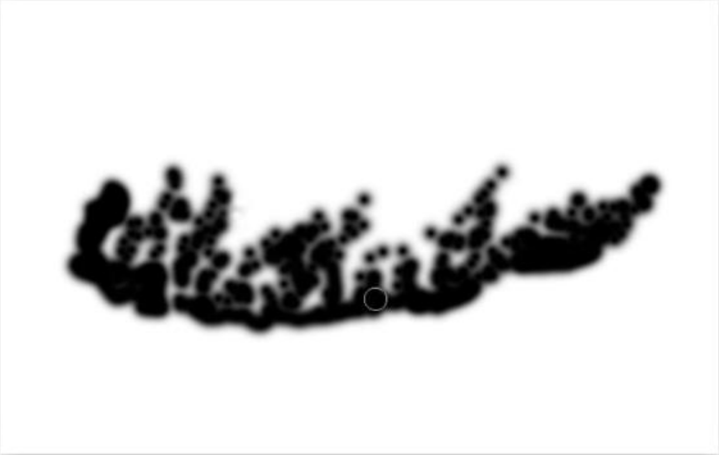
14 A layer mask will be added to the 'statue' image. Click the layer mask thumbnail to make it active. This is important as the next step requires brushing onto the mask and not the image itself. Go to the toolbar and choose the Brush Tool (B) from the menu.


Photoshop
File
Edit
Image
La
60
Mode:
Normal
Size:
60 px
Hardness:
0%
Search Brushes
250
125
300
175
Soft Round
Set foreground color

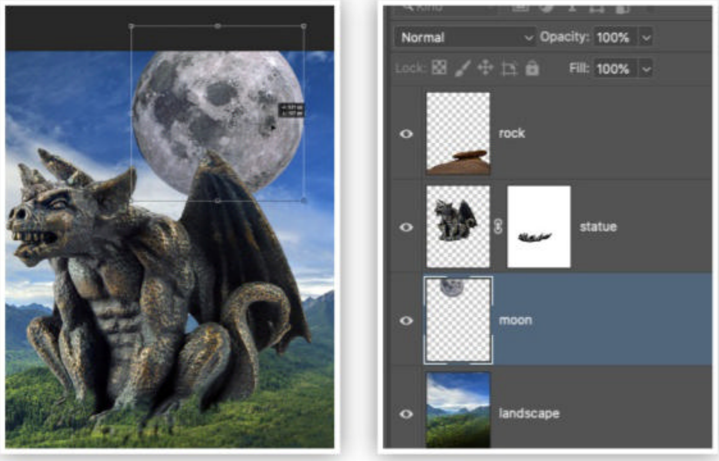
15 With the Brush Tool active, you can go to the Tool Options panel at the top of the document and open the Brush Preset Picker. We need a brush of about 60 pixels with Hardness set to 0% so it will be nice and soft. Then, set the foreground colour to Black, using the Set Color tool.



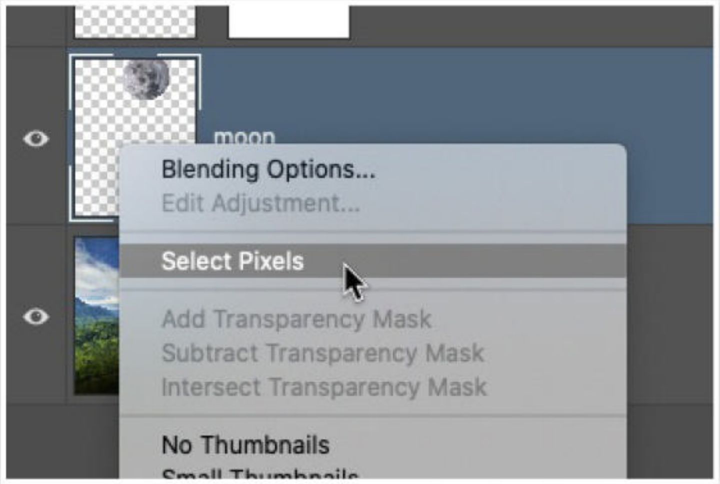
16 Now you can begin to paint with a black brush onto the statue's layer mask. Each brush stroke of black will hide that part of the statue and the foliage underneath will show through. You can paint areas around the toes and make it look like foliage is growing up around its feet.



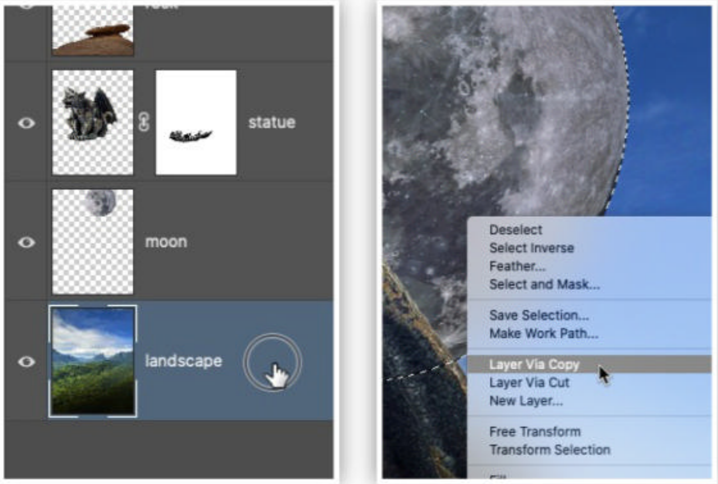
17 If you press Alt + Left-Click the layer mask thumbnail, you can view your handywork. The brush marks are enough to make the statue look more a part of its surroundings, and gives it scale relative to the landscape it is in. You can click on the statue layer thumbnail to exit this view.


Normal
Opacity: 100%
Lock:
Fill: 100%
rock
statue
moon
landscape

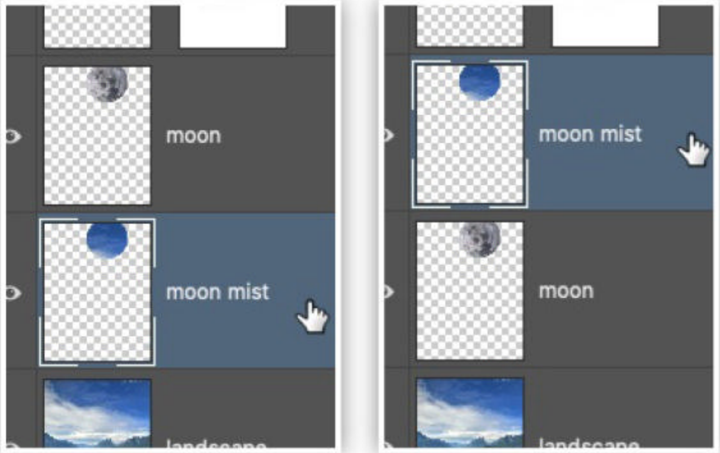
18 Now we can continue layering in new elements. Go File > Open and bring in another image of the moon which we copied to the clipboard. We pasted, scaled and positioned the moon in the working document in a layer called 'moon', between the 'landscape' and 'statue' layers.


moon
Blending Options...
Edit Adjustment...
Select Pixels
Add Transparency Mask
Subtract Transparency Mask
Intersect Transparency Mask
No Thumbnails
Small Thumbnails

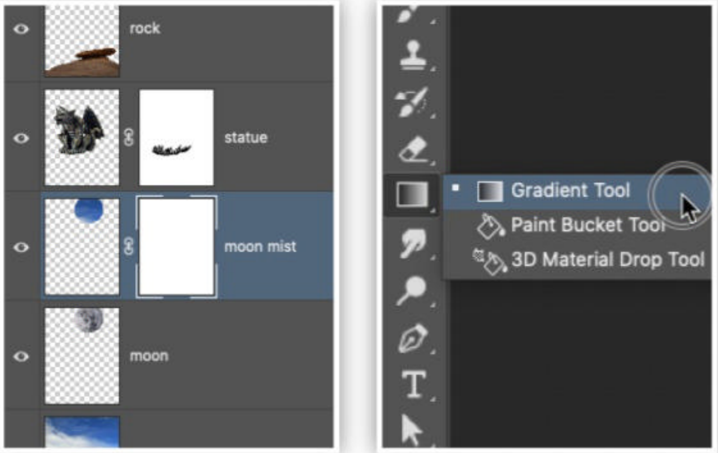
19 The moon looks odd hanging there in front of the clouds, but we can blend it in with some masking. Right-Click the 'moon' layer thumbnail and choose Select Pixels from the list. Alternatively, you can press Alt + Right-Click the 'moon' layer thumbnail. This makes a selection of the moon.


statue
moon
landscape
Deselect
Select Inverse
Feather...
Select and Mask...
Save Selection...
Make Work Path...
Layer Via Copy
Layer Via Cut
New Layer...
Free Transform
Transform Selection

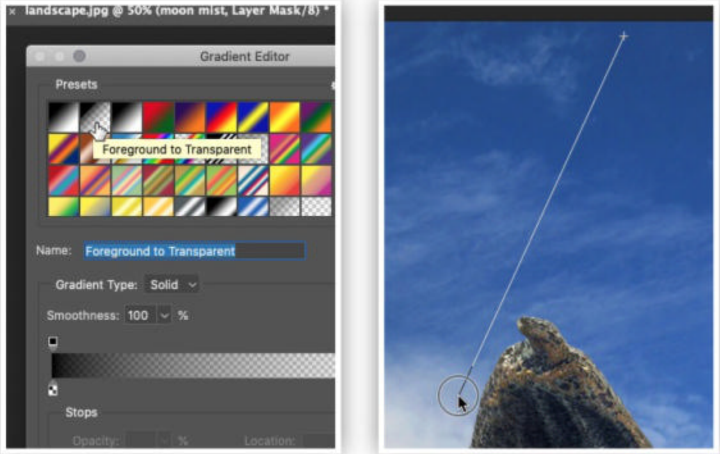
20 With the selection still active, click on the 'landscape' layer. Now choose any selection tool such as the Lasso (L). Right-Click inside the selection area denoted by the 'marching ants' and choose Layer Via Copy from the list. This has just copied the section of sky directly under the moon.


moon
moon mist
landscape
moon mist
moon
landscape

21 This copied area will appear on its own layer which you can call 'moon mist'. You can click and drag this layer so it appears above the 'moon' layer. The moon image will effectively disappear, but it is still there. Click on the 'moon mist' layer to make sure it is active.


rock
statue
moon mist
moon
Gradient Tool
Paint Bucket Tool
3D Material Drop Tool

22 Press Cmd + D to ensure no selections are active. In the Layer Options panel, click on the Add layer Mask button. A layer mask will appear on the 'moon mist' layer. Click the layer mask thumbnail to make it active, then go to the toolbar and choose the Gradient Tool (G).


landscape.jpg @ 50% (moon mist, Layer Mask/8) *

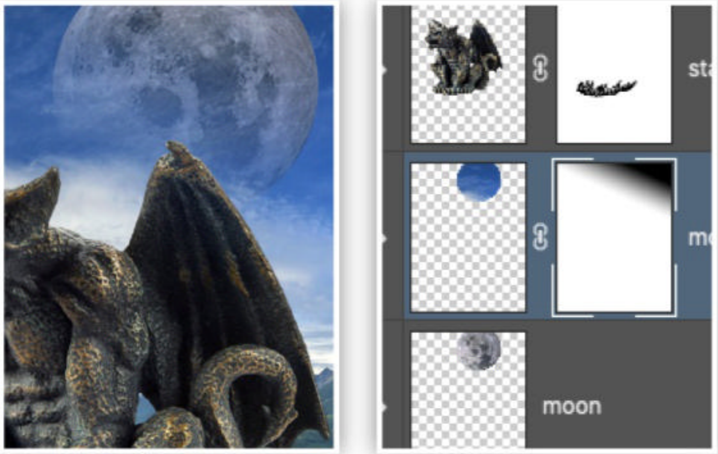
Gradient Editor
Presets
Foreground to Transparent
Stops
Opacity:
Location:

Name: Foreground to Transparent

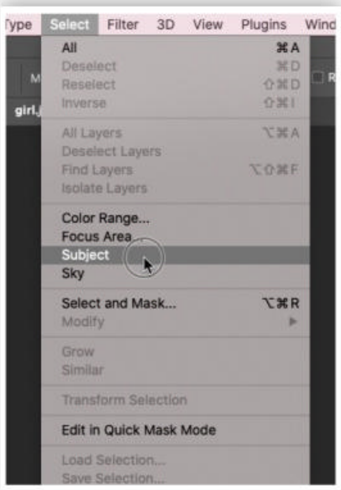
Gradient Type: Solid

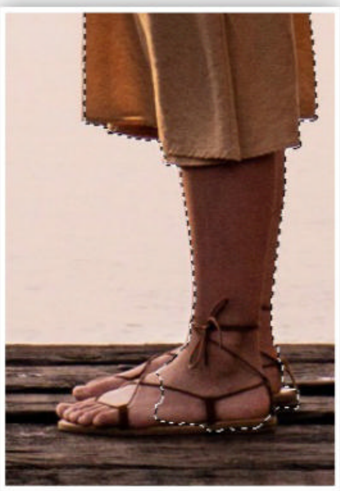
Smoothness: 100 %

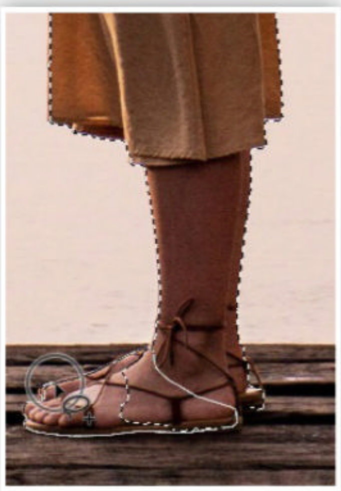
23 Use the Gradient Tool Options Panel to make sure you have the Foreground to Transparent type selected in the Gradient Editor. Now you can click and drag the Gradient Tool from the top of the moon down to the lower part of the moon. When you let go, a black gradient will be created on the mask.



24 Where the gradient is solid black, the 'moon mist' layer is concealed. As the gradient fades to transparent, more of the layer is revealed. This creates the illusion that the moon is just visible through the atmosphere. You can also make the 'moon' layer Opacity 85% to help it blend in.

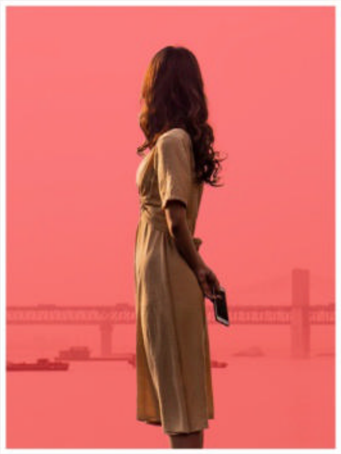

Type
Select
Filter
3D
View
Plugins
Wind
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Sky
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...
girl

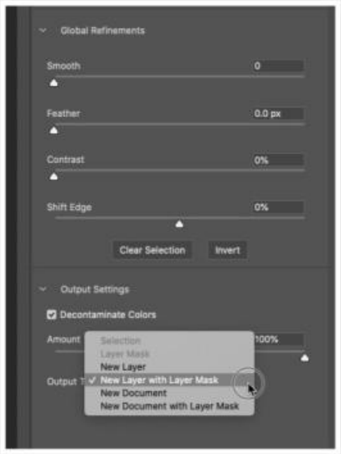




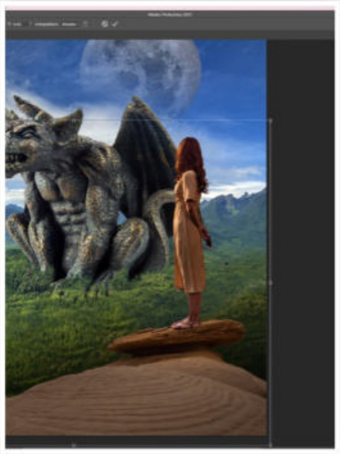
25 We're going to add a foreground character. Go to File > Open and navigate to your image and open it; ours is called 'girl'. We need to extract her from the image. There are a few ways to do this, but Photoshop has introduced the Select Subject feature that can automate the selection process for you.

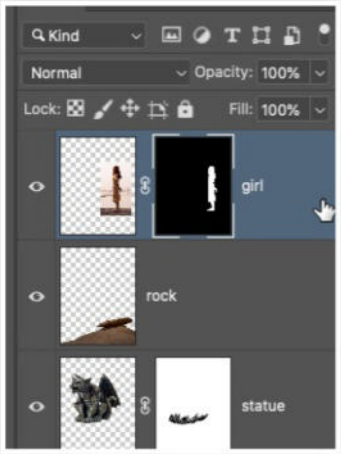
26 The Select Subject tool has done a reasonable job apart from her toes. Select the Lasso Tool (L) and make sure the Add to Selection button is active in the Tool Options panel. Now you can draw around the parts of her feet that haven't been selected, ready for the next part.





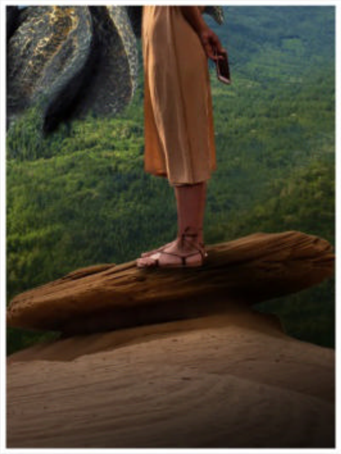
Global Refinements
Smooth 0
Feather 0.0 px
Contrast 0%
Shift Edge 0%
Clear Selection
Invert
Output Settings
☑ Decontaminate Colors
Amount 100%
Output To
Selection
Layer Mask
New Layer
✓ New Layer with Layer Mask
New Document
New Document with Layer Mask

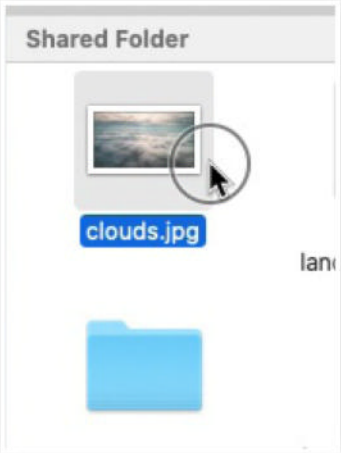


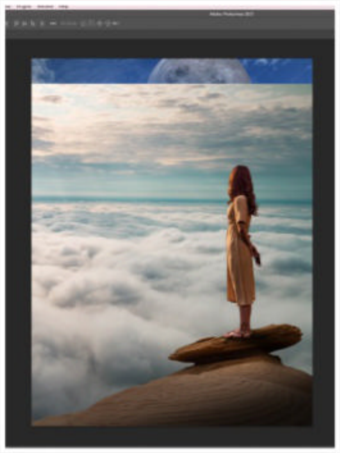

Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
girl
rock
statue

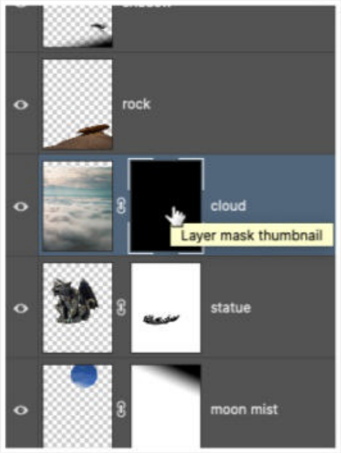
27 Click the Select and Mask button in the Tool Options panel. Use the Refine Edge Brush Tool (R), to refine the quality of the mask around the girl. Increasing the Edge Detection Radius to 8 pixels can help. Click the Decontaminate Colors button, choose New Layer with Layer Mask, then click OK.

28 Copy and paste the new layer into your working document. Put this new layer at the top of the stack above the 'rock' layer and name it 'girl'. You may want to scale both her and the rocks to a slightly smaller size by pressing Cmd + T and dragging and scaling until you have it how you want it.



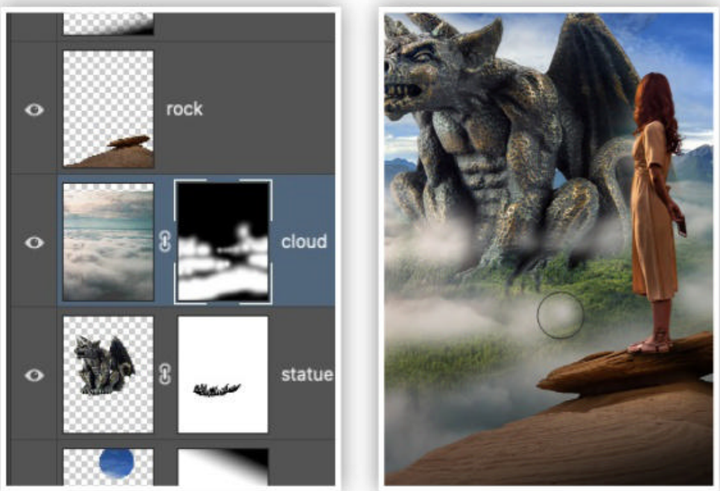

Shared Folder
clouds.jpg
lan



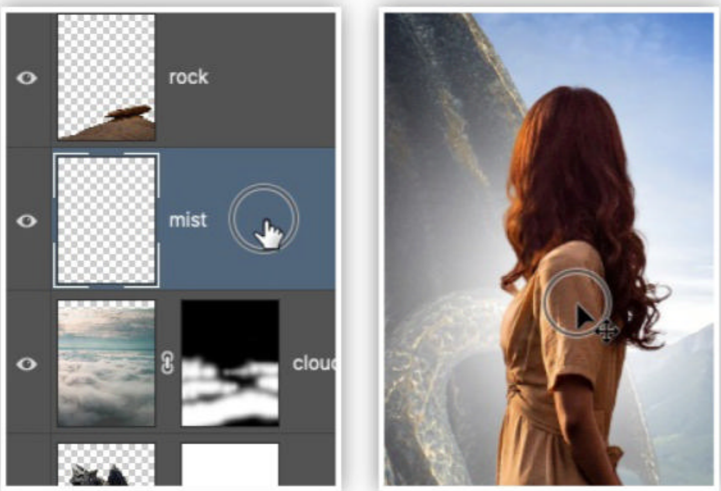

rock
cloud
Layer mask thumbnail
statue
moon mist

29 We also added a layer between the girl and the rocks called 'shadow'. We simply used a small, soft, black brush to add a dark area under her feet, to make it look she was standing on the rocks. Next, we went to File > Open and double-clicked on a file called 'clouds' to open it.

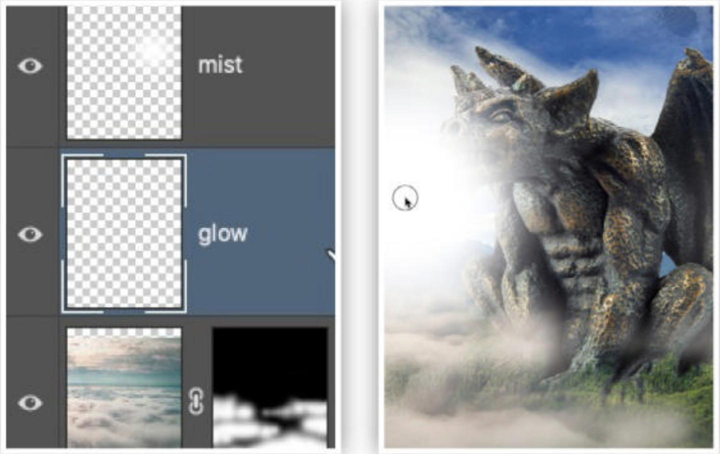
30 We copied and pasted the clouds image onto its own layer between the statue and rock layers. Then we clicked the Add Layer Mask button whilst holding the Alt key to add a black Layer Mask to the cloud image, effectively concealing it for the moment.



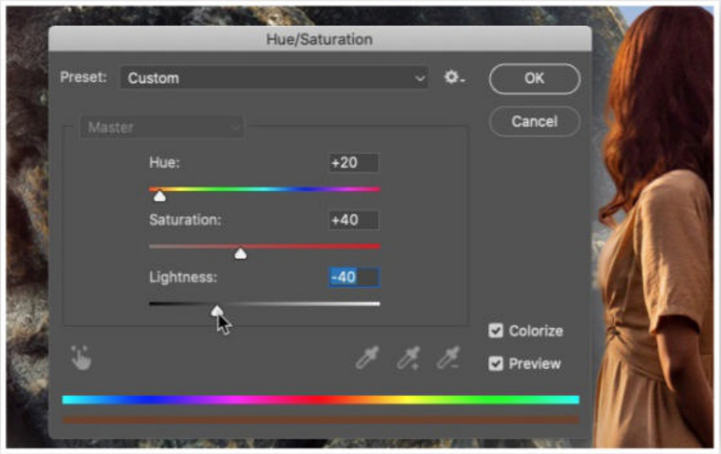
31 We then chose a 500 pixel soft brush and set its colour to white. Then, by painting white brush marks on the black layer mask, we were able to reveal areas of cloud to give the illusion of a fog layer hovering above the foliage and around the base of the statue.



32 We also added a 'mist' layer between the 'cloud' and rock' layers and used a 1200 pixel soft white brush to add extra mist, just by the girl's head and shoulders. We dropped the 'mist' layer's Opacity to about 50%. This gave a little separation between the girl and the statue.



33 At this point we want to add a little glow, as if the sun is just off to one side of the scene. We added a new layer called 'glow' between the 'cloud' and 'mist' layers. Then we used a 1200 pixel soft white brush to paint a large blob off to the left of the scene, below the statue's mouth.



Preset: Custom

Hue: +20

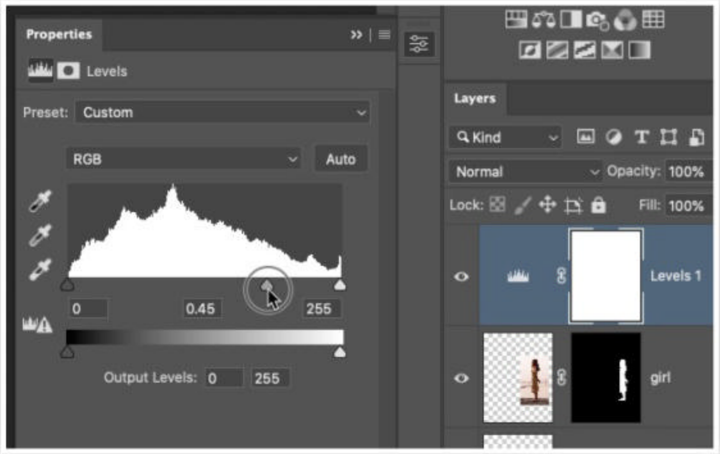
Saturation: +40

Lightness: -40

☑ Colorize

☑ Preview

34 The 'glow' layer's Blend Mode needs to be changed to Linear Light. Then go to Image > Adjustments > Hue/Saturation (Cmd + U), to bring up the Hue/Saturation panel. Make Hue +20, Saturation +40 and Lightness -40, and check the Colorize button. The white blob should now be a warm glow. Click OK.



Preset: Custom

RGB

0 0.45 255

Output Levels: 0 255

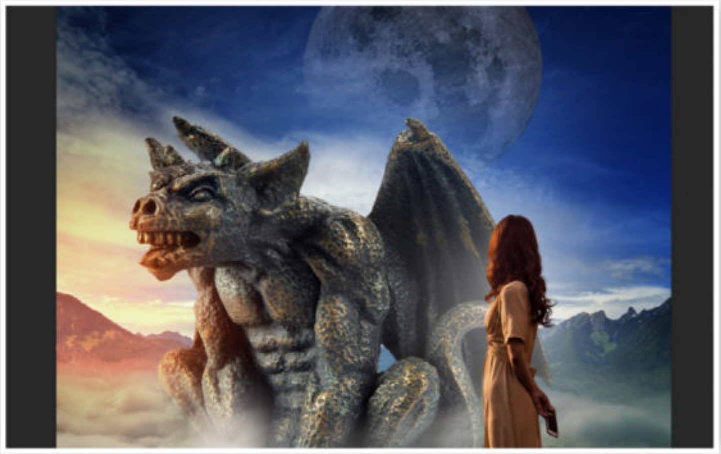
Normal Opacity: 100%

Fill: 100%

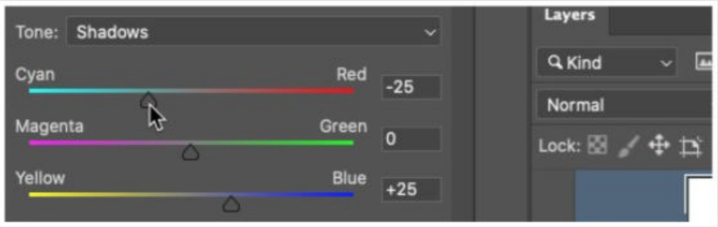
Levels 1

girl

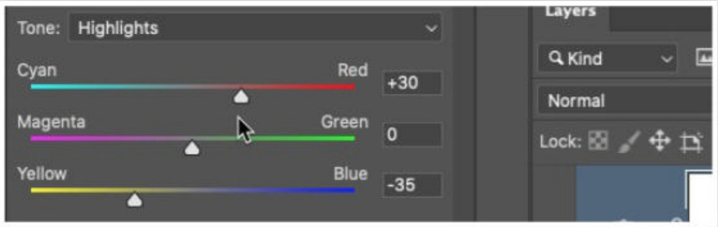
35 In the Layer Option panel, click the New Fill or Adjustment Layer button and choose Levels. Make sure 'Levels 1' is at the very top of the layer stack. In the Levels' properties panel, drag the mid-tone slider to the right, then drag the White Point slider to the left to darken the image.



36 Then take a large 1600 pixel soft, black, brush and begin to paint on the 'Levels 1' layer mask to reveal areas you want to be at their original brightness such as the glow, moon, clouds and other areas that you like. This adds a little more mood to the overall look of the scene.

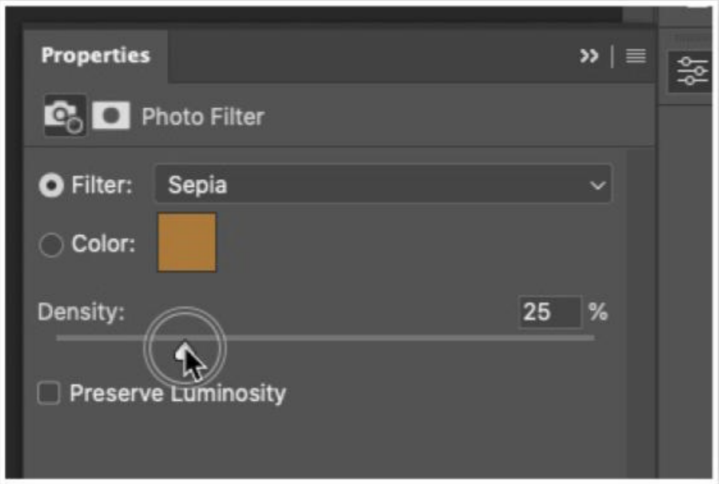


Tone: Shadows
Cyan – Red: -25
Magenta – Green: 0
Yellow – Blue: +25



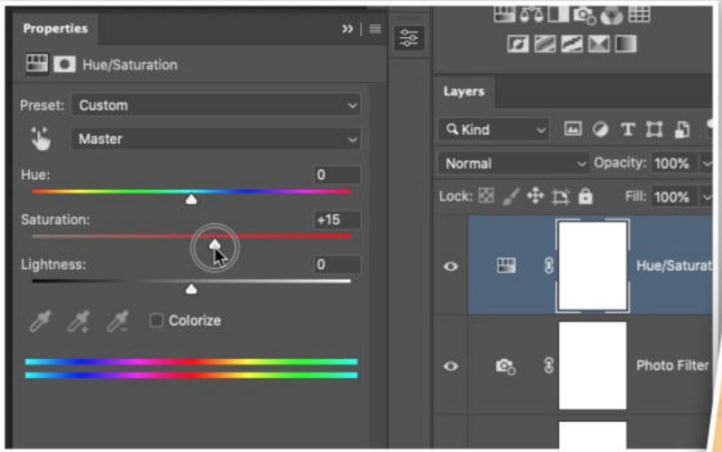
Tone: Highlights
Cyan – Red: +30
Magenta – Green: 0
Yellow – Blue: -35

37 We then added a new Color Balance adjustment layer to the top of the stack. We added Cyan and Blue to the Shadows and Red and Yellow to the Highlights. Preserve Luminosity was unchecked. This added more drama to the scene and also evens out the global colour palette a little.



● Filter: Sepia
○ Color:
Density: 25 %
☐ Preserve Luminosity

38 Then we added a Photo Filter adjustment, and used Sepia as the filter colour; setting its Density to 25% and unchecking the Preserve Luminosity button. This adds a global colour cast to the image that ties all the various objects of differing colours together.



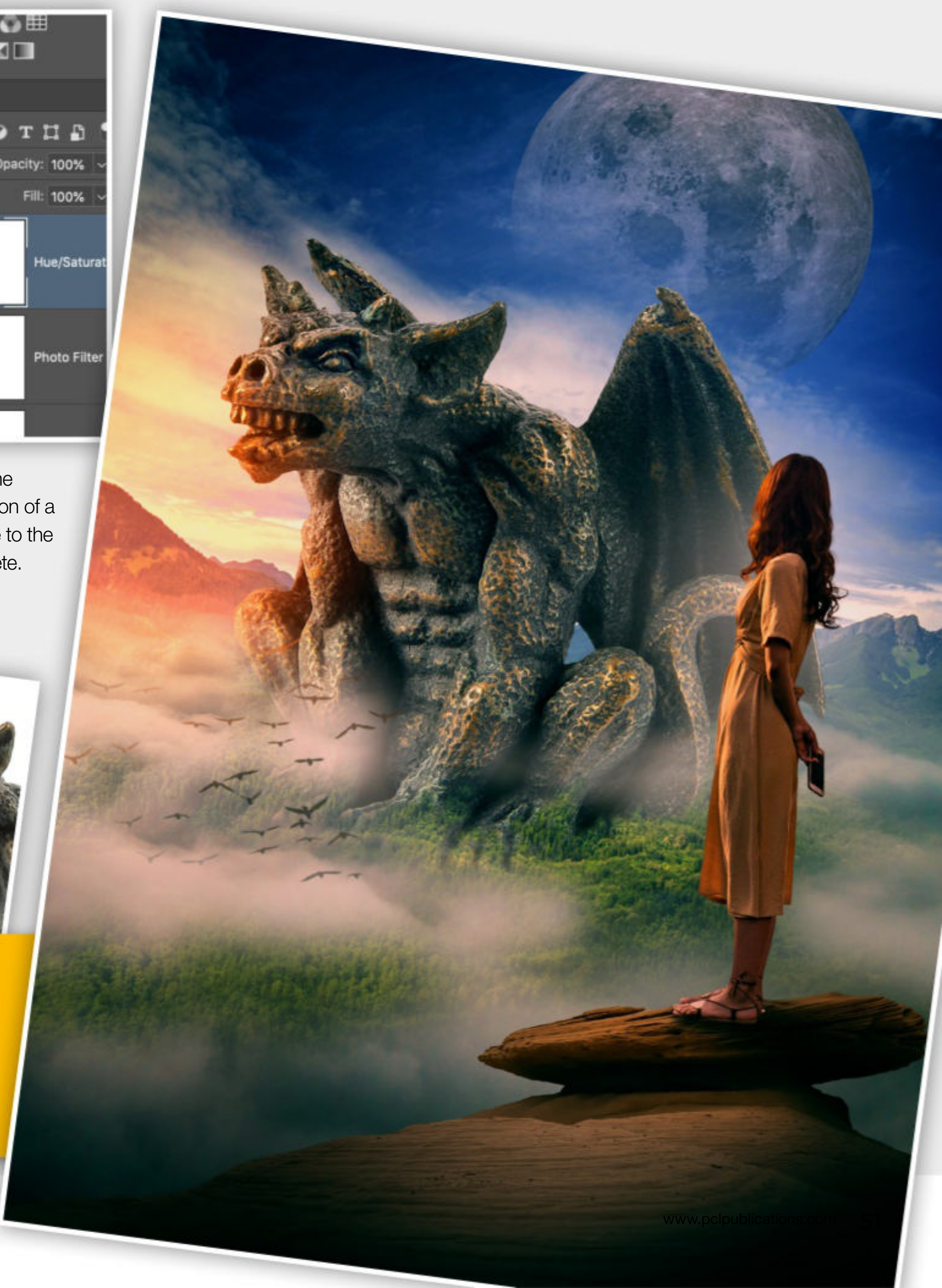
Preset: Custom
Master
Hue: 0
Saturation: +15
Lightness: 0
☐ Colorize

Normal
Opacity: 100%
Lock:
Fill: 100%
Hue/Saturat
Photo Filter

39 A new Hue/Saturation adjustment layer was added to boost the overall saturation of the scene. We then thought that the addition of a small flock of birds in the middle distance would add some more scale to the statue. This final tweak meant that our fantasy scene was now complete.

Bring your vision to life

Compositing allows you to create amazing artworks.

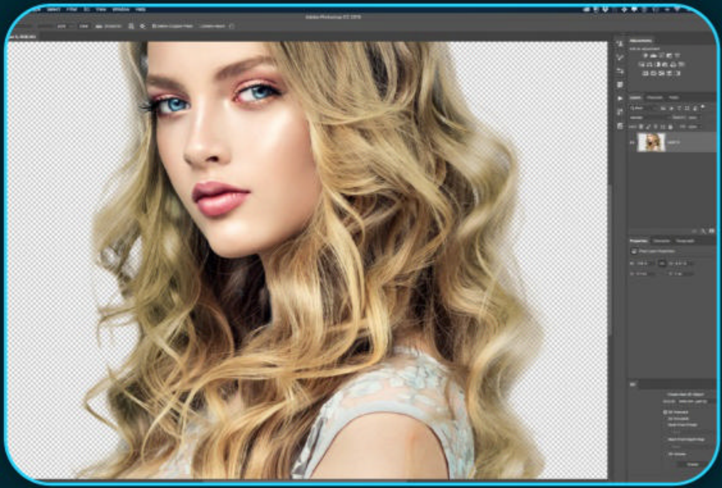


AFTER
BEFORE

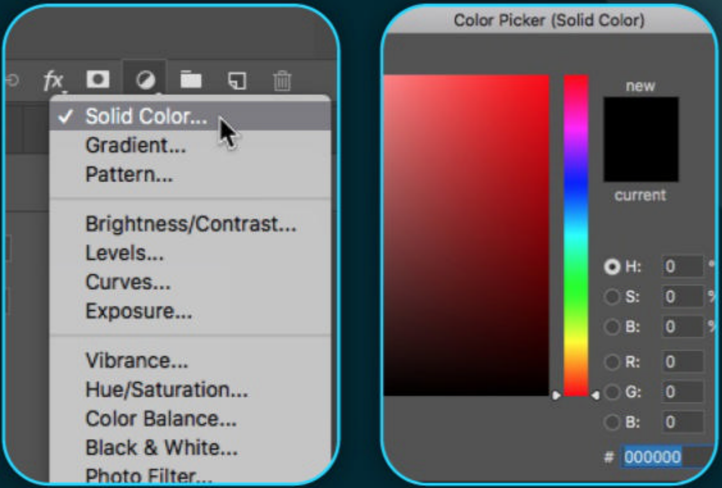
MEGA TIP

Any Colour From Anywhere

When creating a Photoshop document, you will sometimes need to be able to sample colours to use in your document. Do you know that you can sample any colour on your screen, whether it's in Photoshop or not? We show you how.

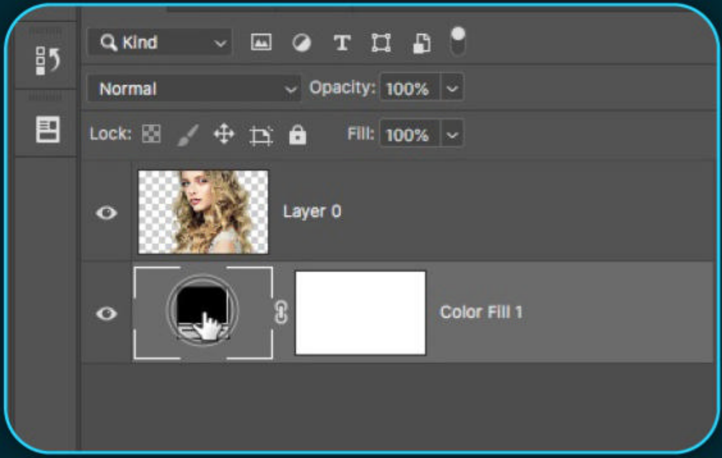


01 Let us say, for the sake of argument, that we are preparing an image that requires a coloured background. The subject of the image has been removed from its original background and you need to place a colour behind it to complete the document.


Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Color Picker (Solid Color)
new
current

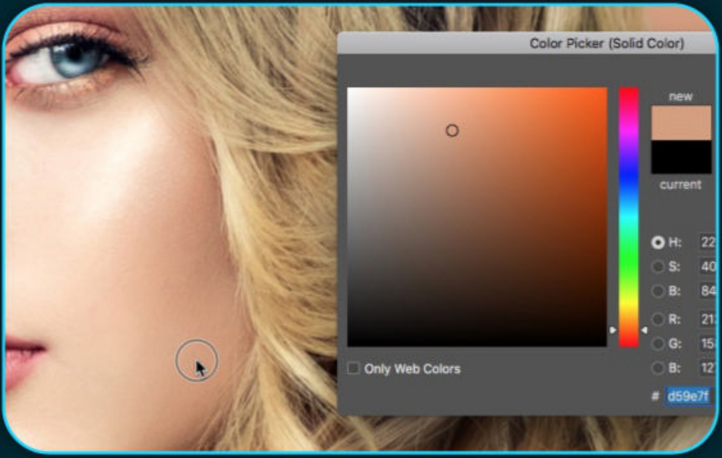
H: 0
S: 0
B: 0
R: 0
G: 0
B: 0
000000

02 If you go to the bottom of the Layer Palette and click on the Create New Fill Or Adjustment Layer icon, you can choose from a number of layer adjustments. In this case, choose Solid Color. When you do, the Color Picker (Solid Color) will open.


Kind
Lock:
Layer 0
Color Fill 1

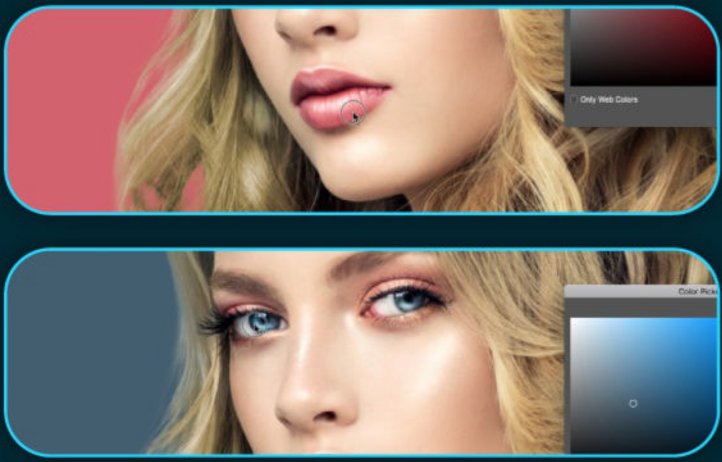
Normal
Opacity: 100%
Fill: 100%

03 The default colour for Solid Colour is usually black, unless you have a colour chosen which is the active foreground colour. The new 'Colour Fill 1' layer will be placed above your cut out subject. Click and drag it so it sits beneath the subject. Now your subject should be sat on a black background.

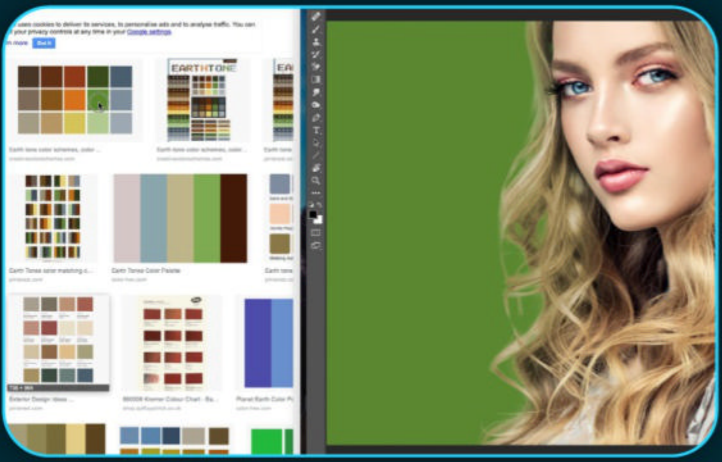

Color Picker (Solid Color)
new
current
Only Web Colors

d59e7f

04 Double-click the Colour Fill 1 thumbnail (not the mask) and the Colour Picker will appear again. Hover your cursor over any part of the Photoshop workspace and then left-click and hold. Wherever your cursor is, the colour directly beneath it will become the new background colour.


Only Web Colors
Color Pick

05 Move the cursor over your subject's cheek and, in real time, the background will become that colour. Hover the cursor over her lips and it becomes a pink colour. Place the cursor over an iris and the background becomes a steel blue colour. This is great, but you can go even further.



06 While the Colour Picker is active, resize the Photoshop window and then open another window beside it. In this case, we opened Google and did a search for 'earth colour swatches'. With the Color Picker active, hover your cursor over the contents of the other window to sample even more colours.

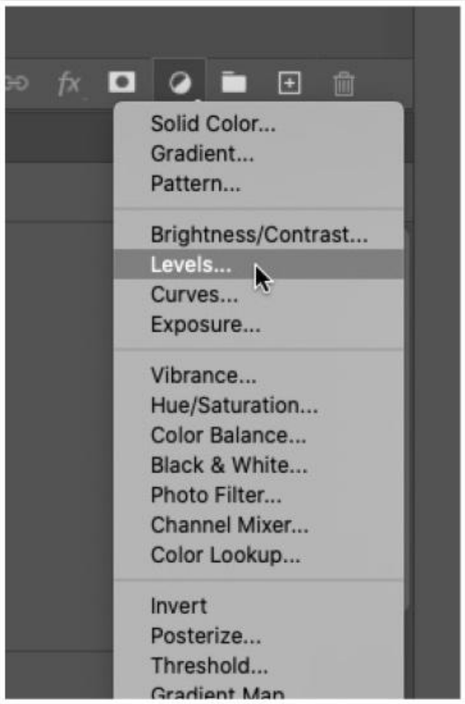
More Photoshop Essentials

As you've progressed through this manual, you'll have become more familiar with how Photoshop works, and should now be ready to take on a few more features that are key to successful image editing. We'll delve even deeper into the toolbox, learning more about layer-based editing, making selections and cloning.

Non-destructive Enhancement Part 1

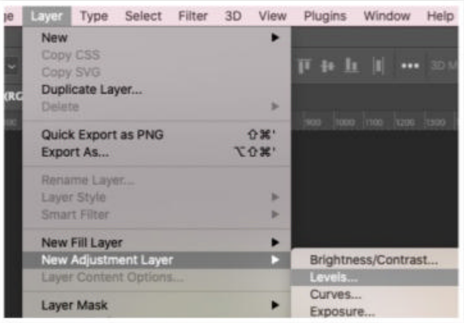
A great way to edit your images without damaging them

Although there are many editing options in the Image > Adjustment menu, they all have one thing in common. When you apply them to an image the effect they have is destructive, because they discard information from the original image. For example, if you apply Curves, then Hue/Saturation, then add a Photo Filter effect, that's three operations that have discarded information, each one degrading your image quality. If you apply an operation repeatedly, such as multiple Curves corrections, you'll actually be able to see the degradation. The only way to undo the damage done by these modifications is to revert to an earlier version by using undo or the History palette, but that also undoes all your subsequent editing as well. This degradation is much worse with 8-bit than with 16-bit images, since there's less information to start with.


Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map

It's impossible to avoid this image degradation altogether, but by using Adjustment Layers we can reduce it as much as possible. Adjustment Layers sit above the pixel layer in the stack and their effects are applied in real time as the layers are displayed. That way if you change your mind about an effect, or wish to change it after it has been applied, your alteration doesn't have any further effect on the layer below it and the image degradation isn't applied until the layers are merged when flattening the image.

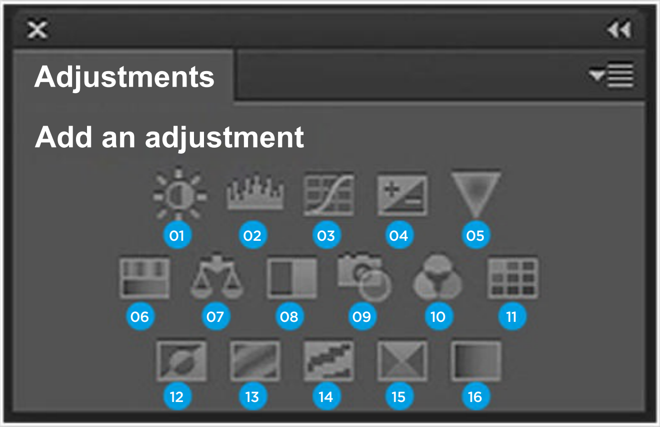
You can apply Adjustment Layers in several ways. First, you'll find a list of available layers in the Layer > New Adjustment Layer menu. Second, if you have the Adjustments palette open (it's open in the default interface workspace) you can click on the button for the layer you want to apply. Third, you can click on the middle button at the bottom of the Layer Palette. All of these offer exactly the same list of options and produce the same results.

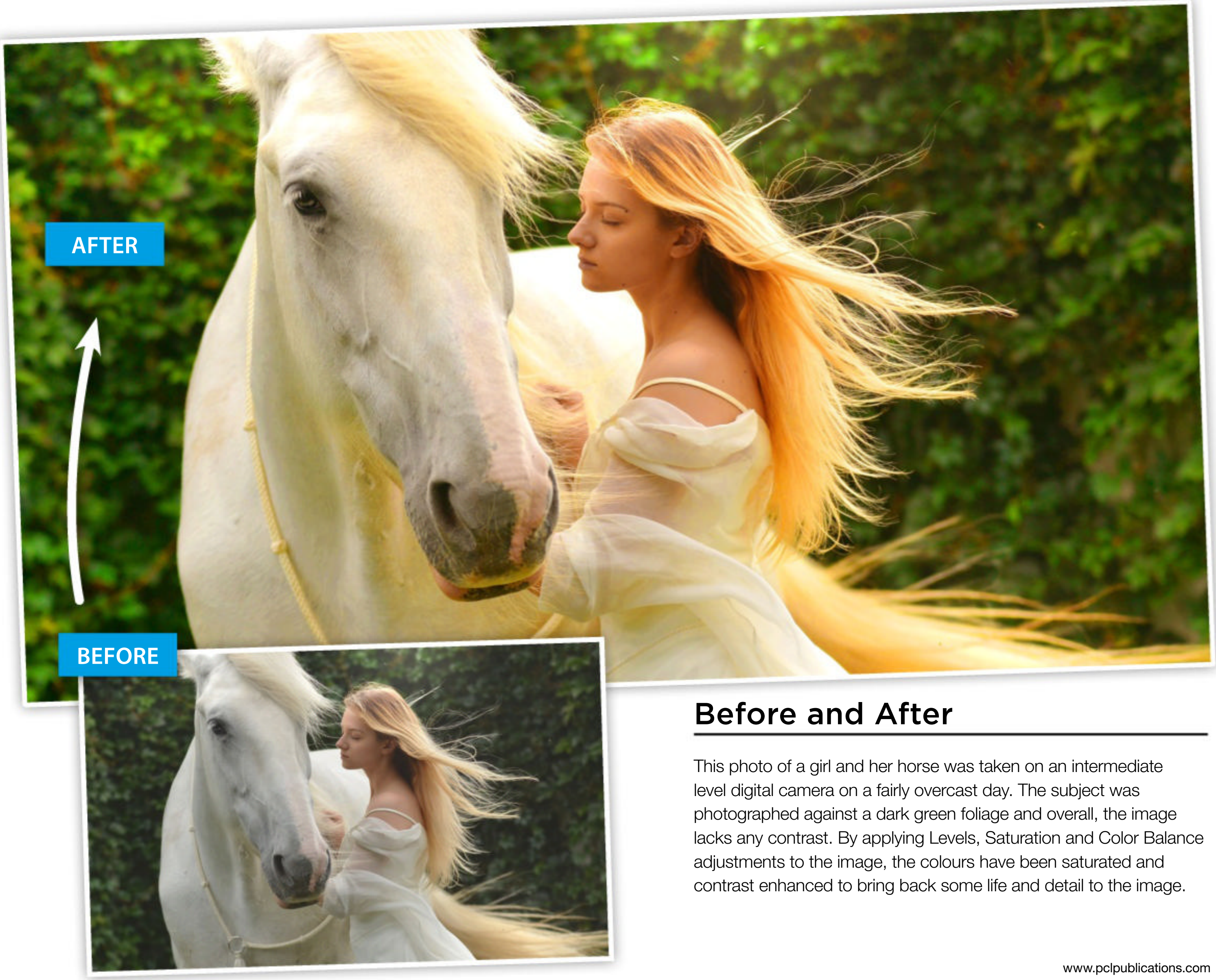

Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Brightness/Contrast...
Levels...
Curves...
Exposure...

The Adjustment Layer Palette

Click on any of these buttons to instantly create a new adjustment layer.

01	**Brightness/Contrast**	Edit image tonal range.
02	**Levels**	Adjust colour and tonal range.
03	**Curves**	Adjust points through the tonal range.
04	**Exposure**	Adjust an images' exposure range.
05	**Vibrance**	Enhance less saturated colours first.
06	**Hue/Saturation**	Alter Hue, Saturation and Lightness.
07	**Colour Balance**	Add colour to shadows and highlights.
08	**Black and White**	Convert to monotone or greyscale.
09	**Photo Filter**	Add custom colour cast to images.
10	**Channel Mixer**	Create tinted or greyscale images.
11	**Colour Lookup**	Add preset colour effects to images.
12	**Invert**	Inverts image colours like a negative.
13	**Posterize**	Adjust the number of tonal levels.
14	**Threshold**	Convert to black and white bitmap.
15	**Selective Colour**	Alter individual primary colours.
16	**Gradient Map**	Maps an image to a custom gradient fill.





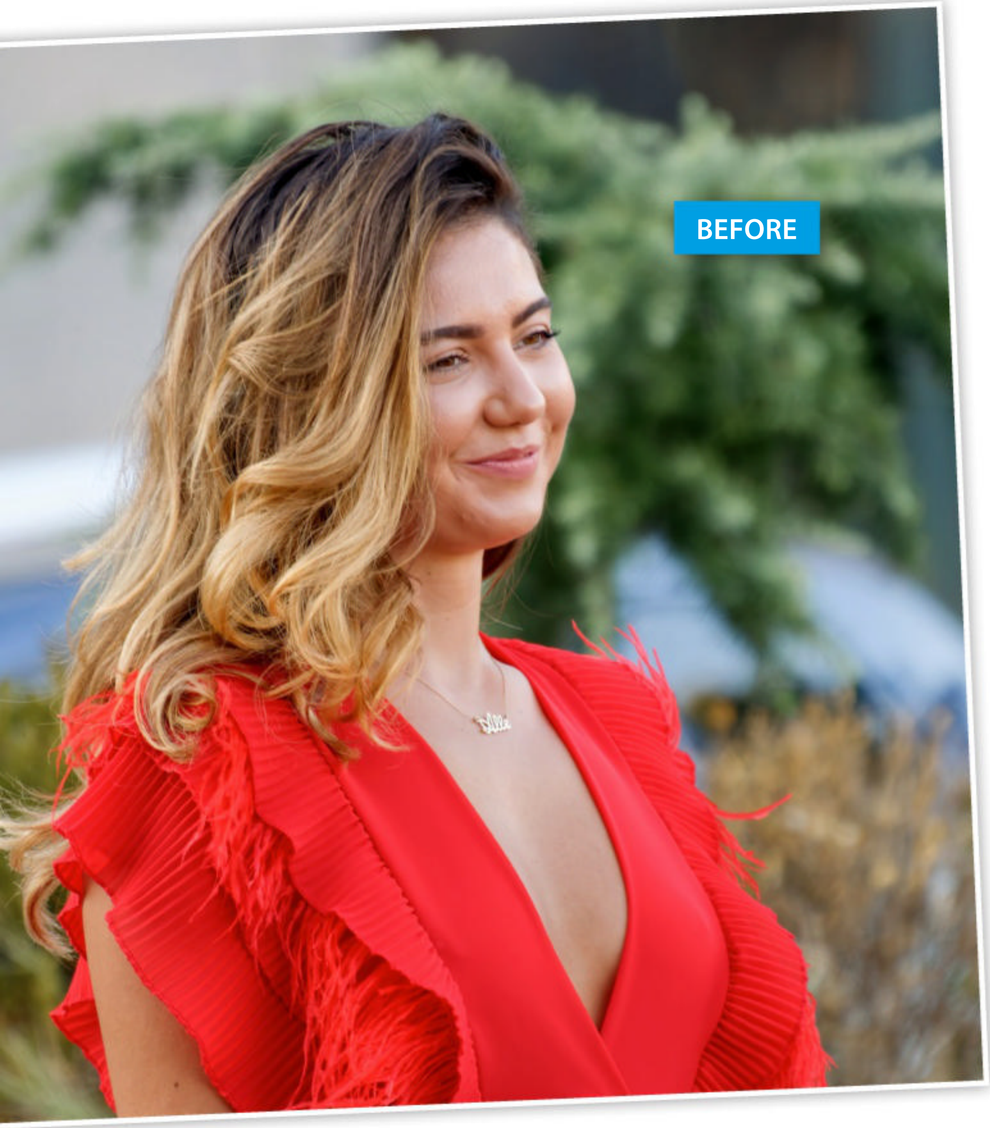
Before and After

This photo of a girl and her horse was taken on an intermediate level digital camera on a fairly overcast day. The subject was photographed against a dark green foliage and overall, the image lacks any contrast. By applying Levels, Saturation and Color Balance adjustments to the image, the colours have been saturated and contrast enhanced to bring back some life and detail to the image.

Non-destructive Enhancement Part 2

Add effects non-destructively with Layer Masks

While a Quick Mask function is an easy way to selectively edit your pictures, the more traditional method is to use Layer Masks. The advantage to this method is that it is non-destructive, so if you don't like the results you can just go back and start again. It is also repeatable, because you can use the same mask for multiple effects, saving you time and effort. For this quick tutorial we'll use a Layer Mask to apply a selective monochrome or colour extraction effect. We'll start with this bright image of a lady in a red dress. The red tones will remain in colour while the rest of the picture will be changed to black and white.



01 To start with, right-click on the thumbnail of the photo in the layer palette and select Duplicate Layer from the menu. Alternatively click and drag the layer thumbnail in the palette onto the New Layer button at the bottom of the palette, which will also duplicate the layer.

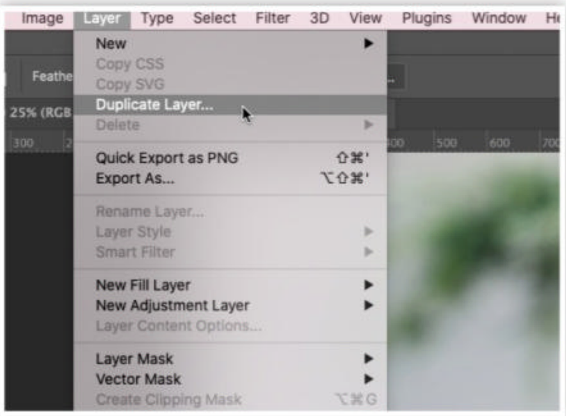
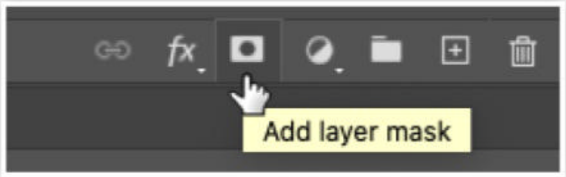
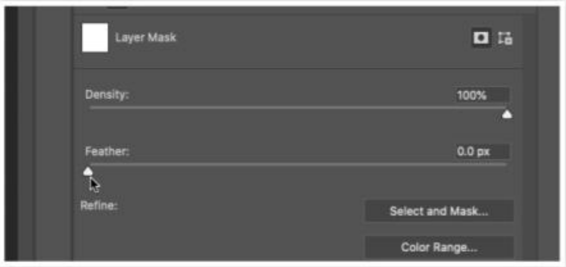


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
New
Copy CSS
Copy SVG
Duplicate Layer...
Delete
Quick Export as PNG ⇧⌘'
Export As... ⌥⇧⌘'
Rename Layer...
Layer Style
Smart Filter
New Fill Layer
New Adjustment Layer
Layer Content Options...
Layer Mask
Vector Mask
Create Clipping Mask ⌥⌘G

02 Next, activate the new layer by clicking on it in the palette and then click on the Add Layer Mask button at the bottom of the palette.

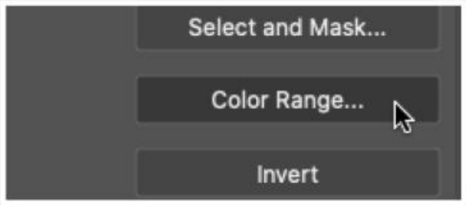

fx
Add layer mask

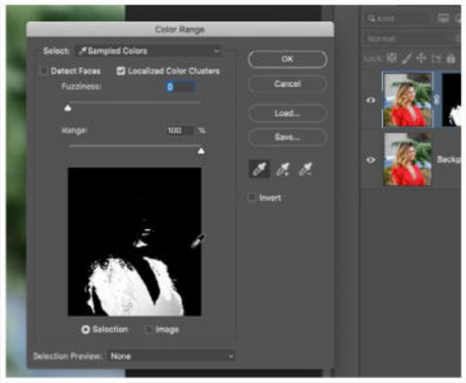
03 A white square will appear in the layer palette representing the new mask. Double-click on this and the Layer Mask palette will fly-out. This palette lets you configure the mask in a variety of ways.


Layer Mask
Refine:
Select and Mask...
Color Range...

Density: 100%
Feather: 0.0 px

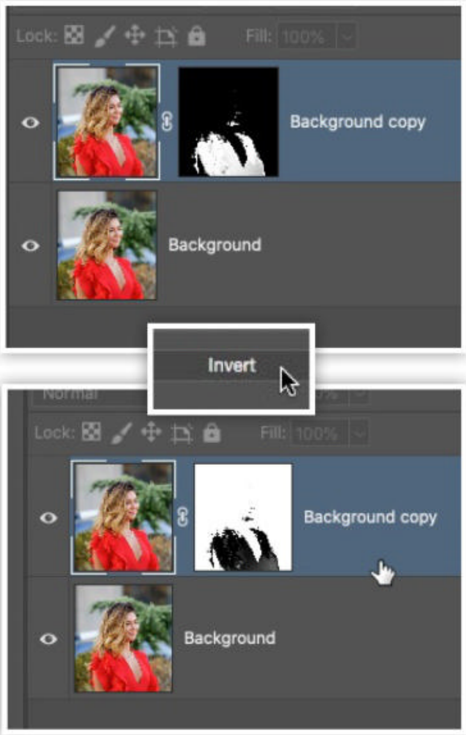
04 Click on the Color Range button and you'll see a new window appear with a colour range picker and the cursor will change to an eyedropper tool. Click on the red material of the dress and adjust the sliders so that as much of the colour as possible is selected, but none of the background. Click OK when you're happy.


Select and Mask...
Color Range...
Invert


Color Range
OK
Cancel
Load...
Save...
Invert
Selection
Image

Select: Sampled Colors
Detect Faces
Localized Color Clusters
Fuzziness: 0
Range: 100 %
Selection Preview: None

05 Now we've got a mask that covers the shape of the dress but what we need is a mask that leaves the chosen colour, while covering everything else, so click on the Invert button that swaps the mask and the background. This effectively creates a hole in the layer through which the background layer will be visible.


Lock:
Fill: 100%
Background copy
Background
Invert
Normal
Lock:
Fill: 100%
Background copy
Background

06 Next we can apply the effect to the top layer. For this one we'll use the Black and White menu option, since it's a quick and easy effect. You'll find it in the Image > Adjustments menu.

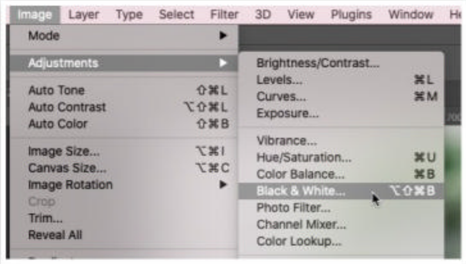
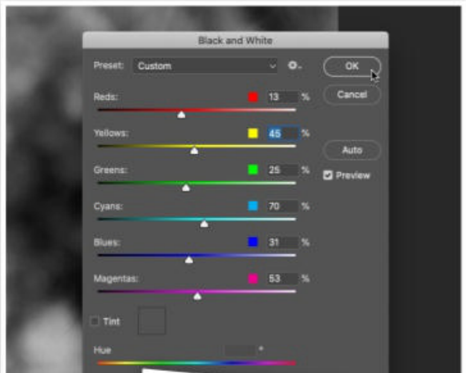


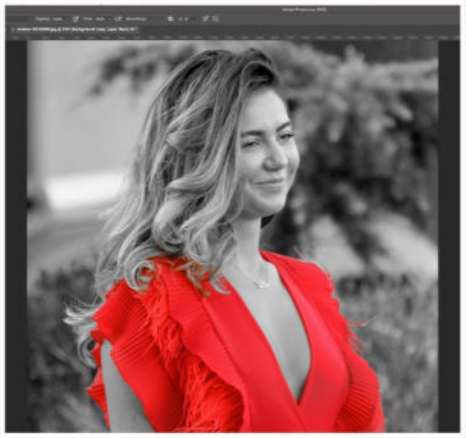
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...

07 You can adjust the parameters of the Black and White effect with the sliders on the window that appears. The results are a matter of personal taste, so adjust the parameters until you're happy.


Black and White
OK
Cancel
Auto
Preview
Tint
Hue
Saturation

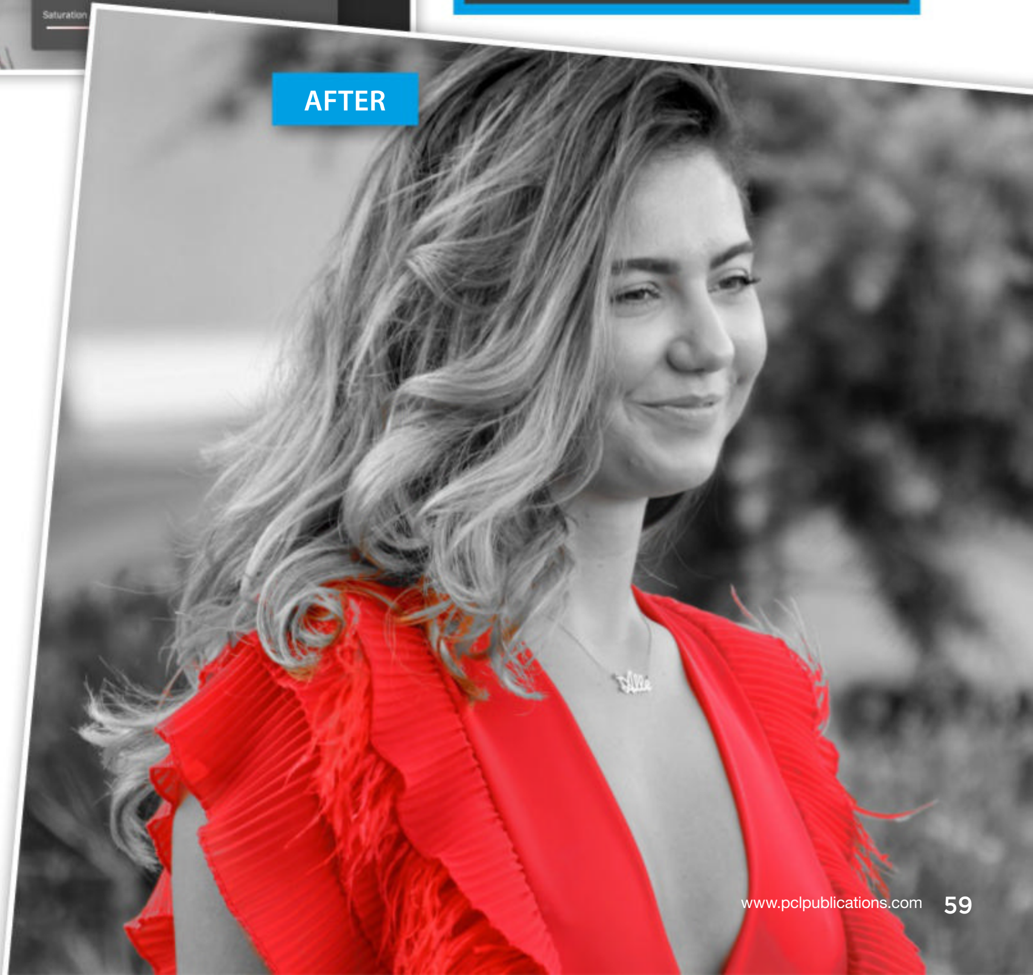
Preset: Custom
Reds: 13 %
Yellows: 45 %
Greens: 25 %
Cyans: 70 %
Blues: 31 %
Magentas: 53 %

08 The Layer Mask can be used to produce any kind of selective effect like this and the great part of it is that the original image is still intact in the background layer, so if you're unhappy with the finished result you can just delete the effect layer and start again. However as you can see, with a little cleaning up of the layer mask, the effect is working well.



USEFUL TIP

Always remember that layer masks do not erase any of a layer's detail, it just makes certain details invisible without deleting them. This is referred to as non-destructive image editing.



Brushes, Pencil and Eraser

Photoshop has many tools to help you create images as well as edit them

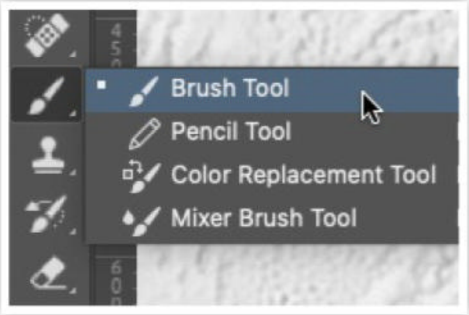
Although it is primarily designed and best known as an image editing program, Photoshop also offers a range of versatile tools, allowing you to create original artwork as well as adapting existing images. The brushes, pencils and eraser are designed to behave as much like their real life counterparts as possible, to make using them an intuitive process. If you have a graphics tablet and a pen, this helps even more.

The Brush Tool

The most useful drawing implement is the Brush (keyboard shortcut B), which is a multi-purpose tool that can emulate almost any type of drawing tool imaginable, be it a fine pencil, a felt-tip marker pen, a soft-bristle brush, an airbrush, or anything in between. The Brush tool has received a major upgrade for version CS6 and now has more options and more presets than ever before, giving you unparalleled versatility for creating your own artistic Photoshop masterpieces.

You select the Brush tool by clicking on its icon in the tool palette, but to get the most out of it you need to open the new Brush palette by clicking on the little folder-shaped icon in the options bar.

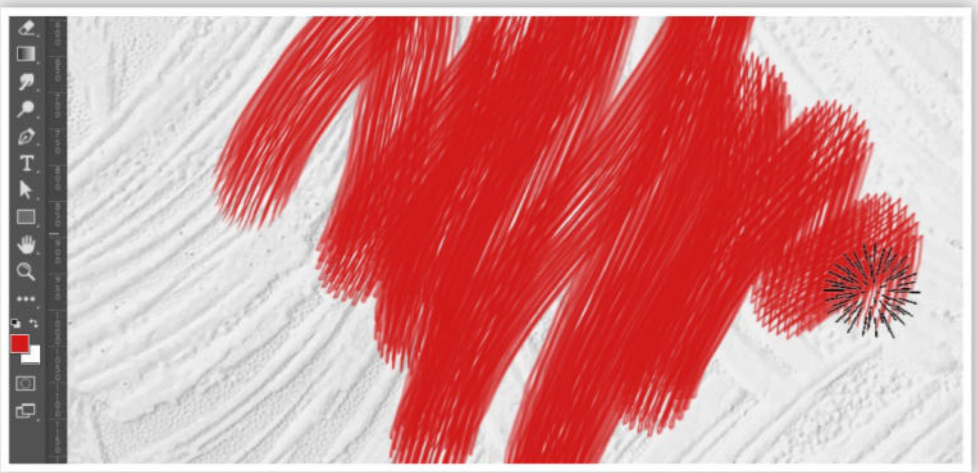
When you take a look at the new Brush palette you'll be blown away by just how customisable it is. You can adjust the shape of the brush tip, the density, length, thickness, stiffness and angle of the brush bristles and adjust or disable brush spacing. As well as



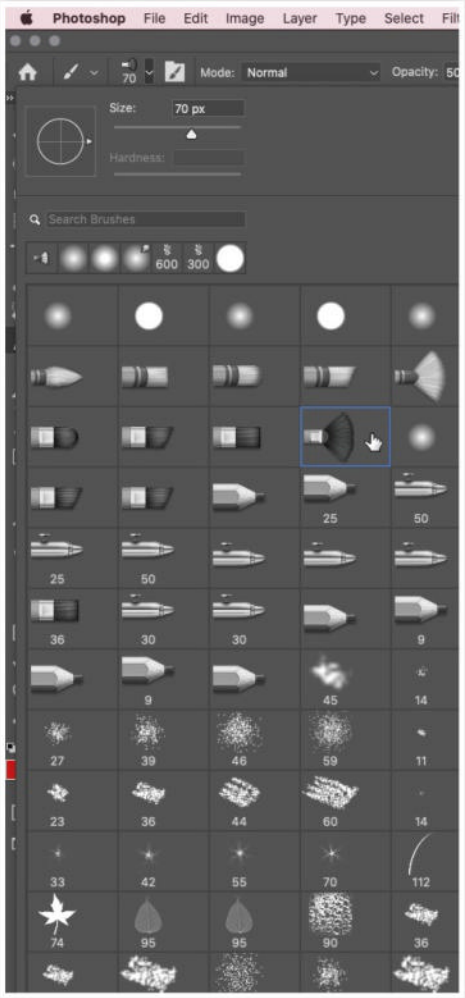
The Pencil Tool

The Pencil tool used to be a separate item from the Brush tool, but with radical expansion of the Brush in Photoshop to include simulations of numerous types of pencil, the Pencil tool itself is now just a variation of the Brush tool and uses the same options palette. It's not without its uses though.

The Pencil can be used as a secondary brush, which can save time swapping between pre-sets and can also be used to apply a stroke to work paths. You can press Shift + B to make it appear. By default it uses the 1 pixel brush size. The pencil tool is limited to hard-edged brush shapes of various sizes.



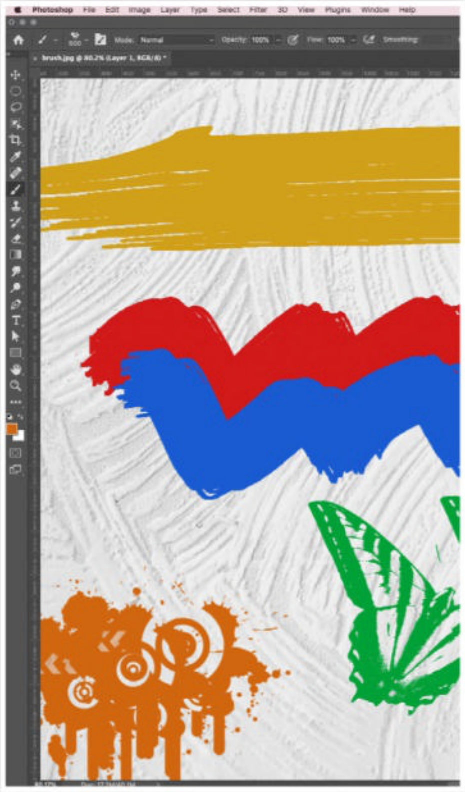
this there are many more options, allowing you to add random scattering, noise, texture, wet edge simulation, airbrush-like build-up and both shape and colour dynamics. If this degree of control is too time-consuming there are also dozens of preset brushes, a small sample of which you can see in the picture shown below.



Mode: Normal
Opacity: 50
Size: 70 px
Hardness:

There are preset brushes to simulate airbrushes, pastel crayons, big soft brushes, small stiff bristles, pencils, felt pens, sponges and even template brushes to quickly draw grass or leaves. The options and adjustments can be applied to preset brushes, so you can customise them for your own specific needs. You can even make your own brushes if you want.

As well as options for the appearance and texture of the brush, there are also options for how it interacts with the layer that you paint on. These are called Blend Modes and you can choose which one to use by clicking on the Modes button in the tool options bar.


Photoshop File Edit Image Layer Type Select Filter 3D View Plugins Window Help

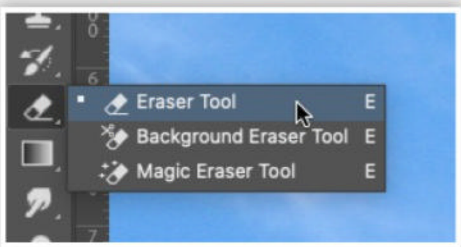
Many people may choose to use Photoshop with a pen and tablet device, such as the Wacom Intuos range shown here. The Brush tool includes options for pen tablet users, such as allowing pen pressure to control either brush size or opacity.

wacom
wacom

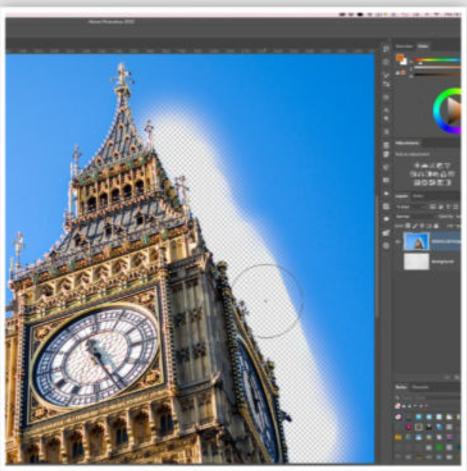
The Eraser Tool

The Eraser tool (keyboard shortcut E) is a specialised variation on the brush tool and uses the same palette options. It differs from the standard brush in that it can render pixels from a layer transparent, allowing the layer beneath to show through. If used on the background layer it paints in whatever the current background colour is set to.

As well as the Brush palette options, the Eraser also has tool options including Opacity, Flow and one unique one, Erase to History, which can be used in conjunction with the History palette to selectively undo changes in layers. The Mode options for the Eraser are Brush, Pencil or Block, which is a small square-shaped eraser of fixed size and full opacity.

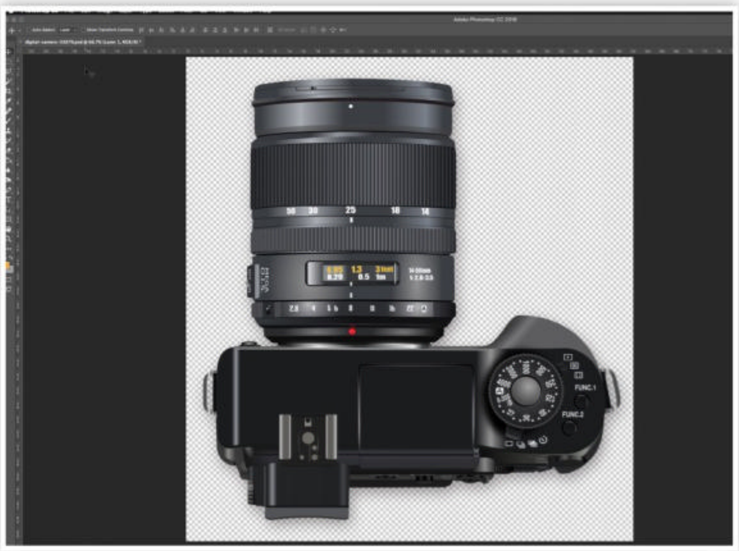


There are two other Eraser options available if you click and hold on the Eraser tool. Background Eraser can, as the name suggests, erase parts of the background, but it does this by converting the background into a layer. Magic Eraser simply combines the Magic Wand tool with the Eraser tool and selectively erases contiguous areas of colour.



Making Selections

The ability to select and modify only part of an image is fundamental to how Photoshop works



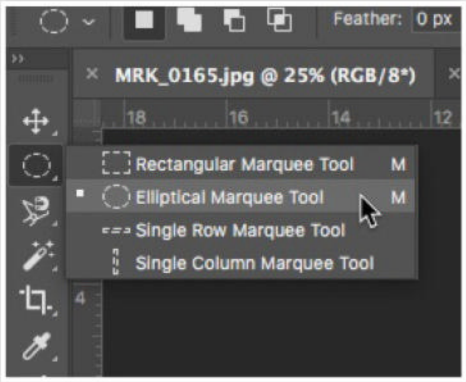
One of the most basic features of Photoshop is the ability to modify only part of an image, leaving the rest unchanged. The way that we do this is by using Selections, and there are several tools and menu operations that we can use to help us achieve this.

After the Move Tool, the next three icons on the Tool Palette are all selection tools, giving you a wide range of methods for isolating an area of your image. Some are fully manual, while others use varying degrees of automation.

The most basic selection tools are the Rectangular and Elliptical Marquee Tools. These both allow you to manually select a simple shape of any size, or of a fixed size or aspect ratio. You can select several areas, either separately or joined together, and with a hard edge or a soft feathered edge. The various Lasso Tools let you select an area of irregular shape, again with the option of a feathered edge. You can draw the area freehand, or use point-to-point lines for greater precision.

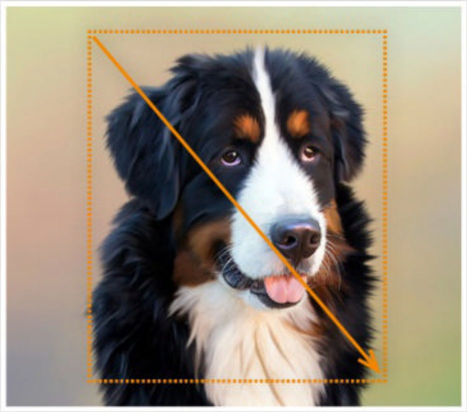
Let's take a look at the process of making a selection, and examine the various options that are available.

Elliptical Marquee Tool

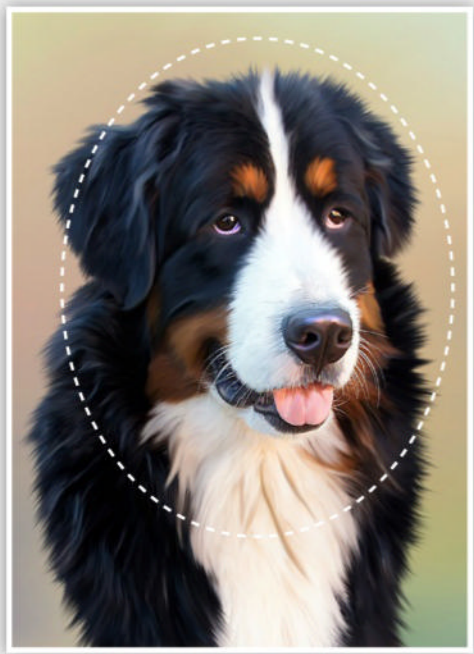

Feather: 0 px
MRK_0165.jpg @ 25% (RGB/8*)
18
16
14
12
Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool
4

01 The Elliptical Marquee Tool works in much the same way as the Rectangular Marquee, but draws a curved shape.

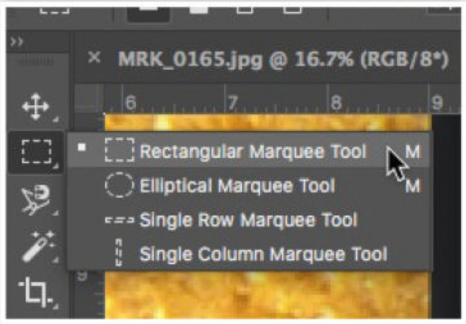
02 As with the Rectangular Marquee, you can set the size or aspect ratio. A ratio of 1x1 draws a circle, other ratios draw ellipses of various sizes.



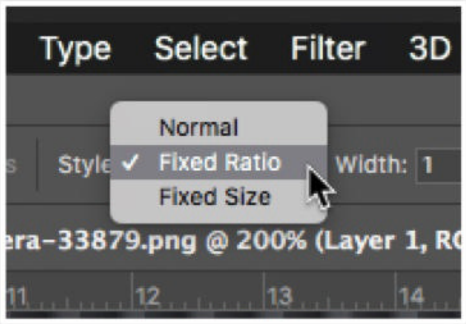
03 To draw an ellipse around your subject, imagine that it's actually a rectangle, start from one corner and drag to the diagonally opposite corner. This can be tricky to get right, so alternatively hold down the Alt key and start from the centre of where you want your ellipse to be.



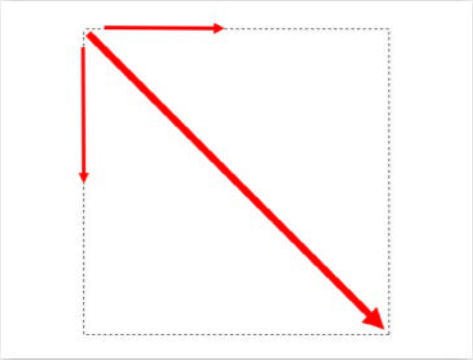
Simple Area Selection


MRK_0165.jpg @ 16.7% (RGB/8*)
Rectangular Marquee Tool M
Elliptical Marquee Tool M
Single Row Marquee Tool
Single Column Marquee Tool

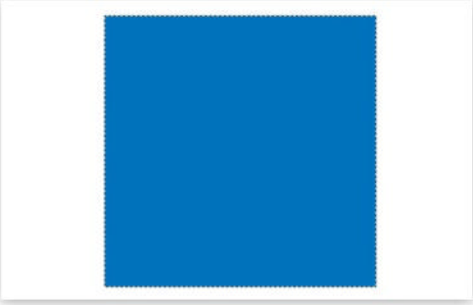
01 Let's start off with the simplest selection tool, the Rectangular Marquee. This is used, as the name implies, for selecting simple rectangular shapes.


Type
Select
Filter
3D
Normal
Style ✓ Fixed Ratio
Fixed Size
Width: 1
era-33879.png @ 200% (Layer 1, R

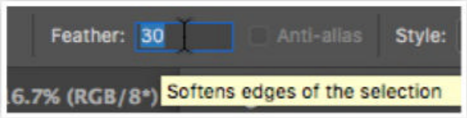
02 You can draw a freehand rectangle, or fix the size or aspect ratio by using the Tool Options. Let's draw a perfect square selection by setting a ratio of 1x1.



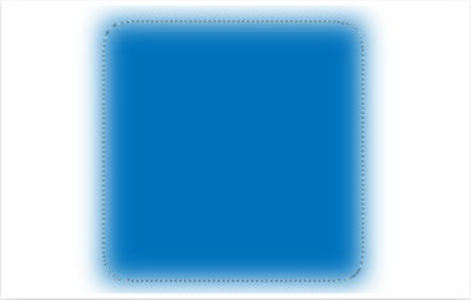
03 To draw a square, click on a point where you want one of the corners to be, then hold and drag to the diagonally opposite corner. You'll see the "marching ants" line of the selection box appear following the cursor.



04 If you use the Paint Bucket Tool to fill the area you've selected you'll see that the edges are very sharp.


Feather: 30
Anti-alias
Style:
6.7% (RGB/8*)
Softens edges of the selection

05 To make a soft-edged selection, type a number into the Feather box. The higher the number, the more blurred the edge will be.

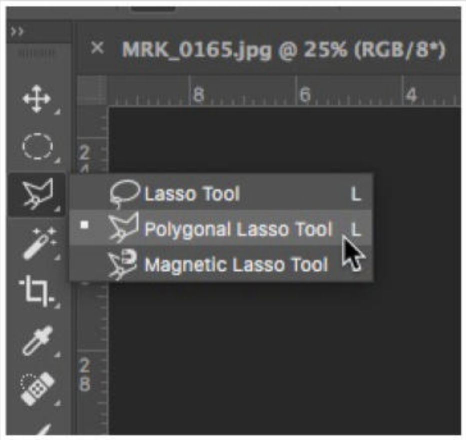


06 This time if you draw a selection and fill it, you'll see that the edges are very blurred, with the marquee "marching ants" line in the middle of the blurred area.

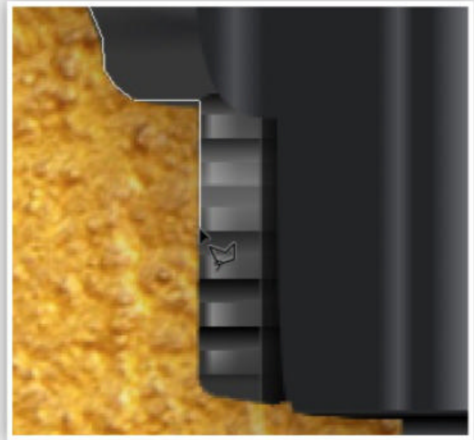
USEFUL TIP

If you want to select more than one area or add to the current selection, holding down the Shift key will temporarily put the tool into "Add to Selection" mode.

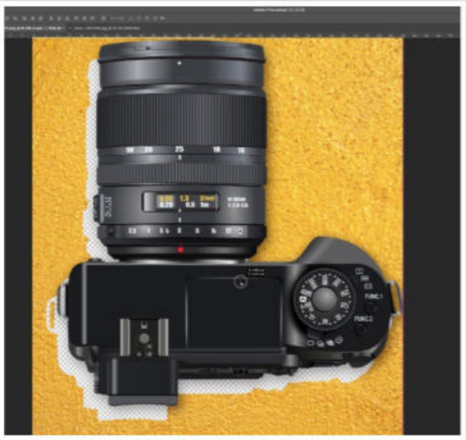
Polygonal Lasso Tool


MRK_0165.jpg @ 25% (RGB/8*)
Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L

01 For selecting more complex shapes, the best option is the Polygonal Lasso Tool, or if you want to draw freehand, then the Lasso Tool is the one to go for. Drawing freehand may be quite odd using a mouse, but with a little practice you can use it with confidence.



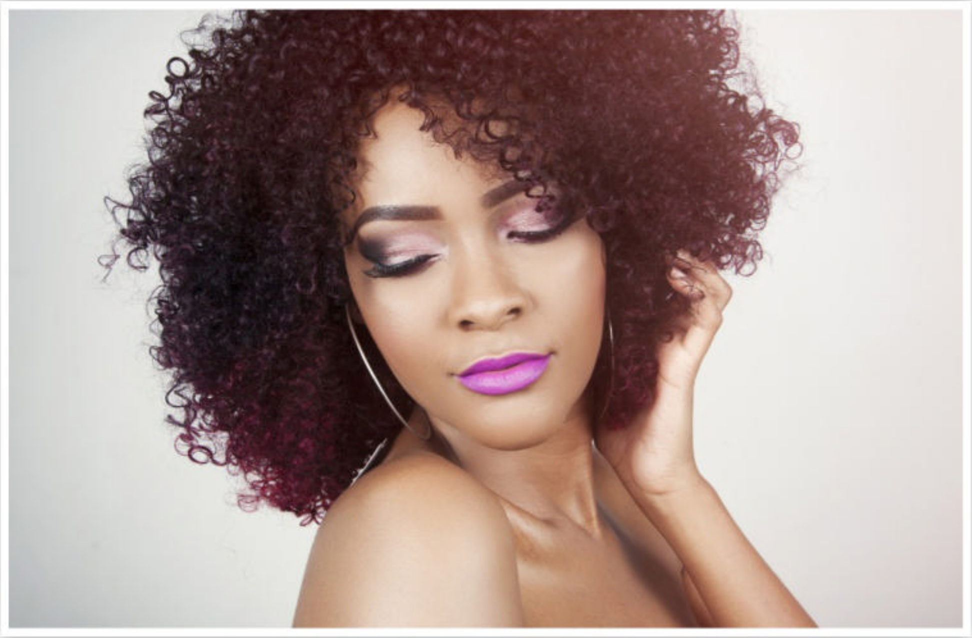
02 With the Polygonal Lasso, you click around the edge of the area you want to select. When you complete the loop, or double-click, the selection is completed and you'll see the "marching ants" border.



03 A Polygonal Lasso selection is ideal if you want to cut or copy a complex shape out of a background, for example to make it part of another picture. It is particularly helpful when your subject has lots of straight, regular edges that are easy to follow.

Modifying Selections

Photoshop has sophisticated tools to refine selections

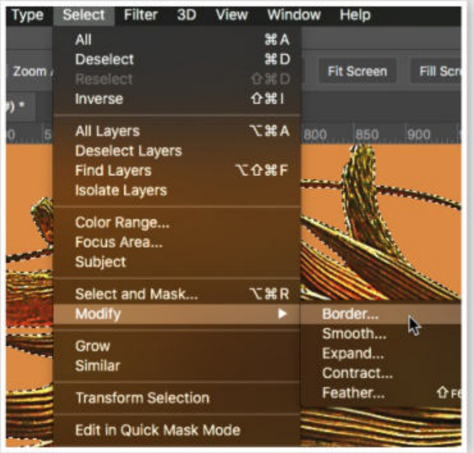


Photoshop's standard selection tools: the Marquee, Lasso and Magic Wand, are fine for making basic selections of regular, well defined shapes, but they're not so good at picking out soft-edged or very fine shapes. One thing in particular, that has always been a problem, is the edge of fine or untidy hair. Take the photo shown here for example:

This image is representative of a typical studio setting, with good lighting and against a plain background. Photos like this are used all the time for catalogues, advertising posters and the like.

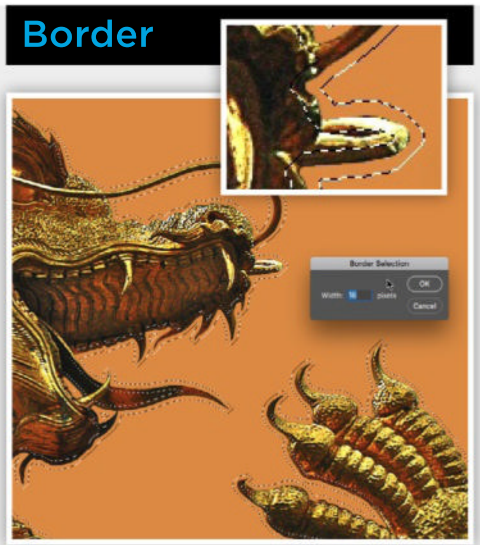
However, in order to fit these needs the model will have to be separated from the background. With a plain background like this, it would be tempting to use a normal selection tool such as the Magic Wand. However if we try it, what we end up with is something like this:

Modify Selection


Type
Select
Filter
3D
View
Window
Help
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Border...
Smooth...
Expand...
Contract...
Feather...
Zoom
Fit Screen
Fill Scr
800
850
900

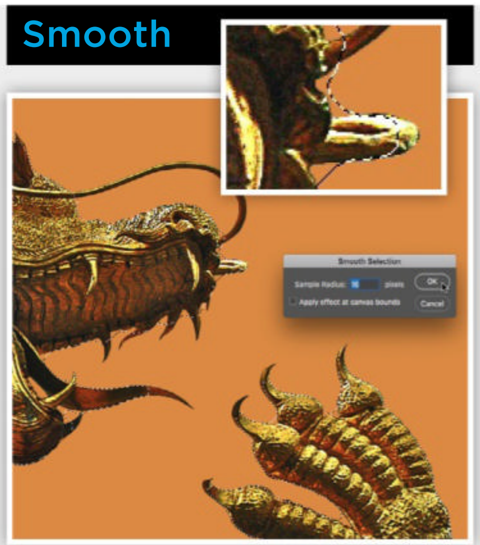
Photoshop has other tools to modify a selection which you'll find, appropriately enough, in the Select menu, under Modify. The options include: Border, Smooth, Expand, Contract and Feather. They're all relatively simple, but useful nonetheless. We have some examples to show you.

Border

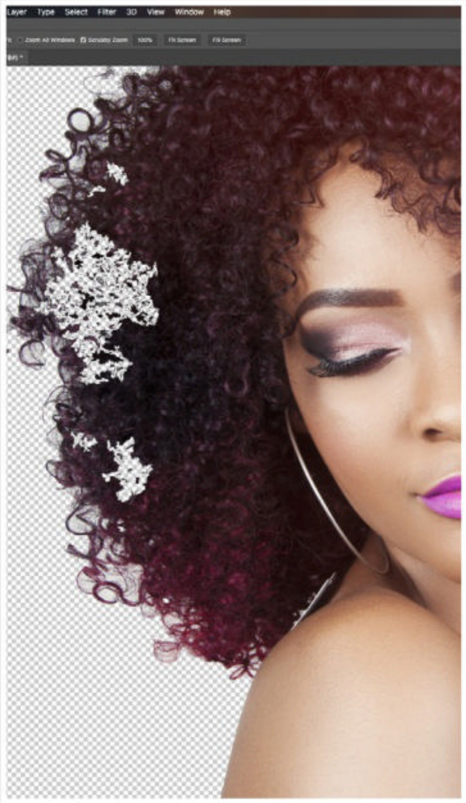

Border Selection
Width:
pixels
OK
Cancel

Border converts the single-line selection into a border of the specified width. You can use this selection to create a border around your original selection by using the Paint Bucket Tool. Be aware that the border extends an equal amount from either side of your original selection.

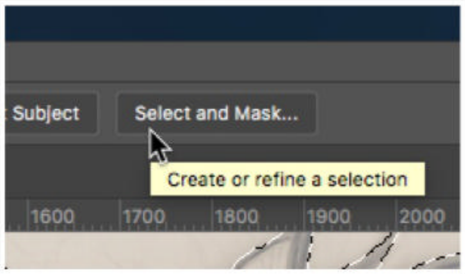
Smooth


Smooth Selection
Sample Radius:
pixels
Apply effect at canvas bounds
OK
Cancel

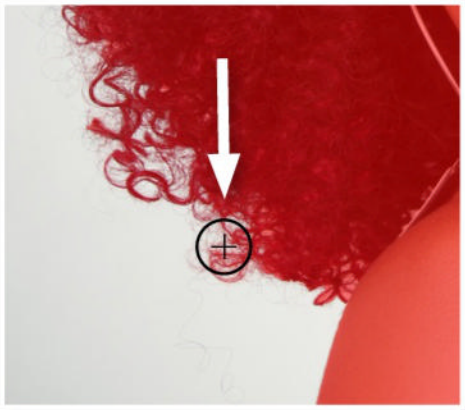
Smooth removes the kinks and wrinkles from the line of your selection. It's useful when you're selecting smooth-edged objects, but it will round off the corners of any irregular shapes. The larger the value of Smooth Selection, the smoother and less detailed the selection becomes.



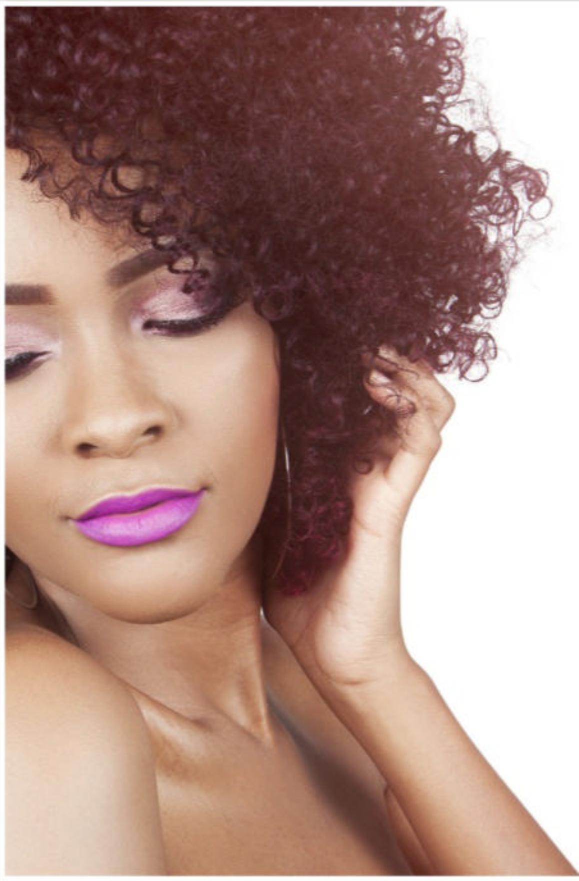
As you can see, the edge around the model's hair looks terrible. The automatic Magic Wand selection has produced a very jagged edge, because it can't distinguish between the fine edge of the hair and the background. Fortunately the latest version of Photoshop has a feature called Select and Mask, which is capable of making much finer distinctions.



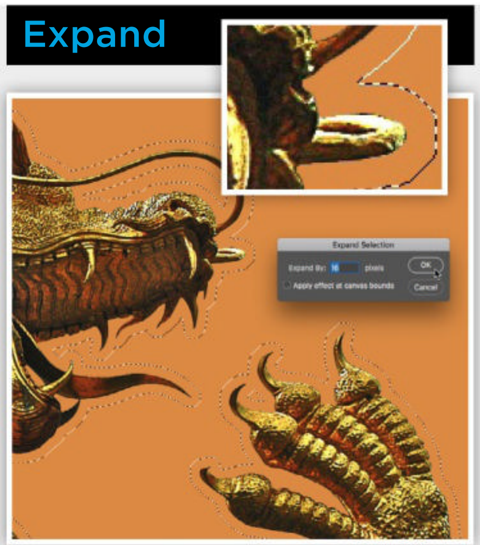
Select and Mask is very easy to use. Starting with a Magic Wand or Polygonal Lasso selection as close as possible to the edge of the hair, or any other soft edge, click on the Refine Edge button on the Tool Options bar. In the dialog window that opens, in Edge Definition, check the box marked Smart Radius and use the square brackets keys to set the brush size so that it's large enough to cover the hazy edge area around the hair. Then simply paint around the edge, overlapping both the model and the background.



When you've been around all the edge area that you want to refine, click OK and then wait a few seconds while the program recalculates the edge. As you can see here, the result is a good improvement over the first attempt.



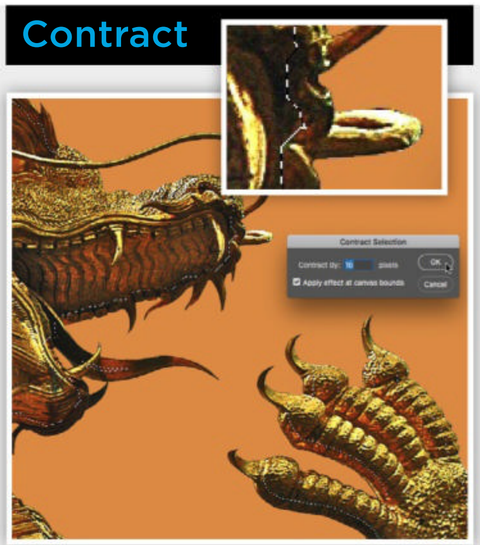
Expand



Expand By: 16 pixels
○ Apply effect at canvas bounds

Expand, as the name suggests, expands the size of the selection by the specified number of pixels. The larger the value you expand the selection by, the more the detail and shape of your original selection will begin to decrease as it enlarges outwards.

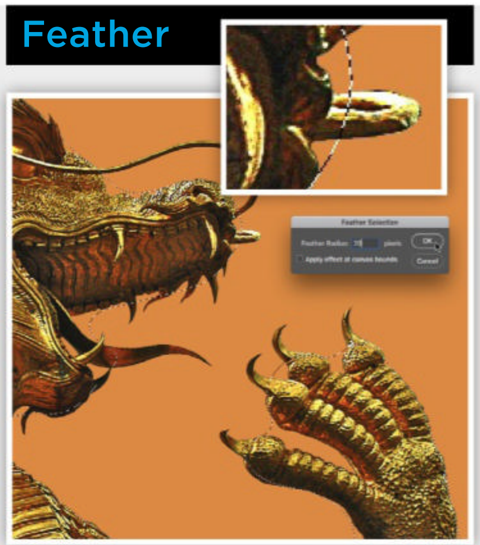
Contract



Contract By: 16 pixels
☑ Apply effect at canvas bounds

Contract is the opposite of Expand. It shrinks the size of the selection by the specified number of pixels. As with the Expand option, the more you Contract the selection, the more the original selection shape's detail will become less well defined.

Feather



Feather Radius: 30 pixels
☐ Apply effect at canvas bounds

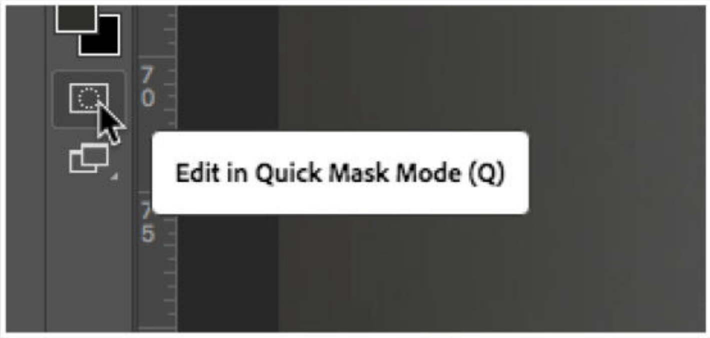
We've looked at Feather before. It softens the edge of the selection by the radius set in the dialog box. It's perhaps the most useful option here, particularly if you're trying to copy and paste the selection into a background. Unlike Smooth, this creates a soft vignette effect.

Quick Mask Mode

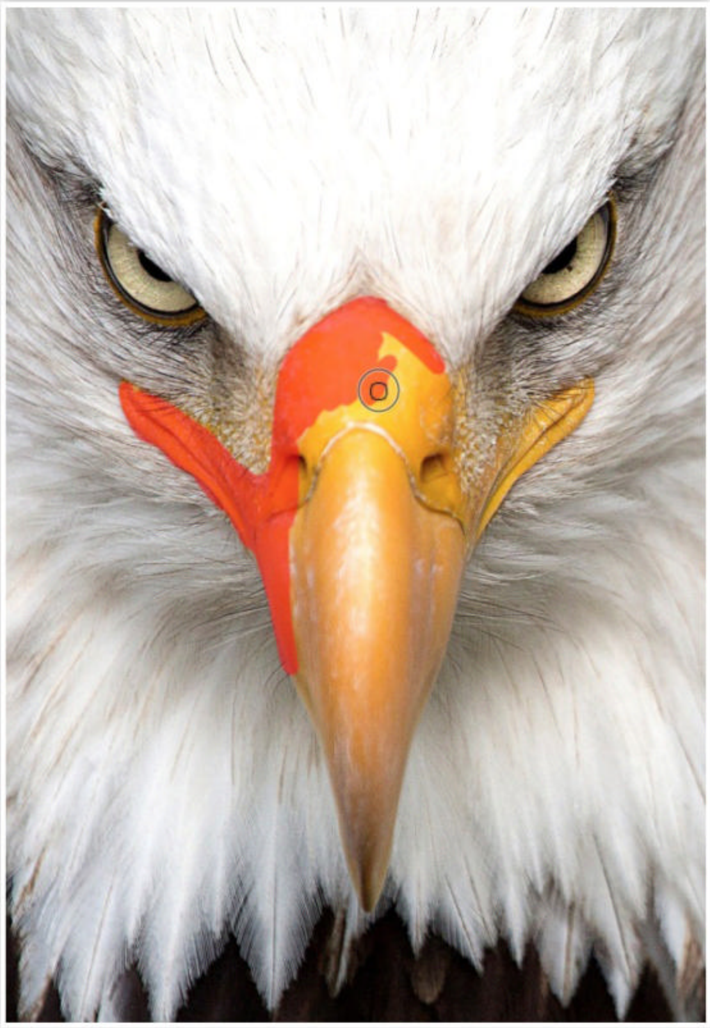
There's a quicker way of editing selections and masks

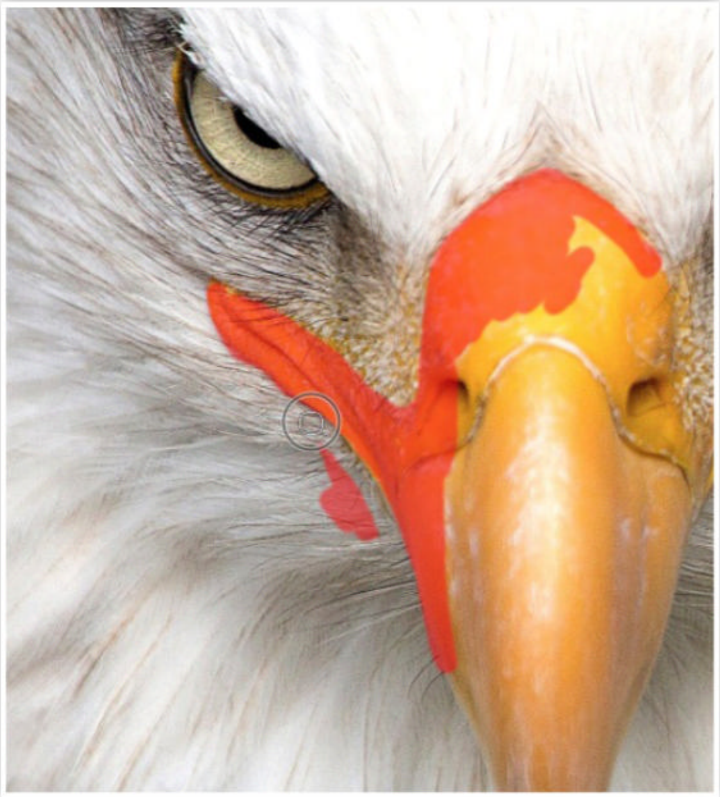
USEFUL TIP

By varying the transparency of the Quick Mask selection you can alter the effect of the edit you want to perform.



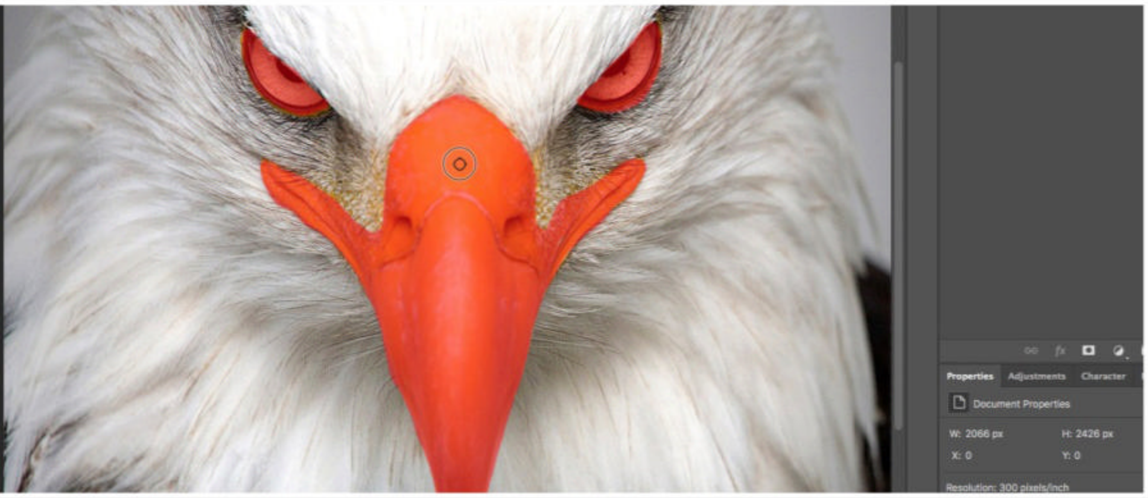
Often when editing in Photoshop it's useful to be able to block off certain areas that we don't want to be affected. For that we use masks and there are several ways of creating them, but by far the easiest is Quick Mask, a fantastically useful feature that was first introduced in Photoshop 7. Quick Mask lets you create and edit masks and selections quickly and easily using any of Photoshop's pixel painting tools to apply a brushed mask with freehand strokes of the mouse. It's extremely simple to use, but it can produce a wide and varied range of results. You'll find the Quick Mask mode button near the bottom of the Tool Palette. Clicking it will toggle Quick Mask mode on or off.





The most basic way to use Quick Mask is with the brush tool. When you switch on Quick Mask, you'll notice that the foreground and background colours change to black and white. Select a normal paint brush and start painting in black. You'll see that instead of black, the colour is a translucent red. Paint this colour over the area you want to mask.

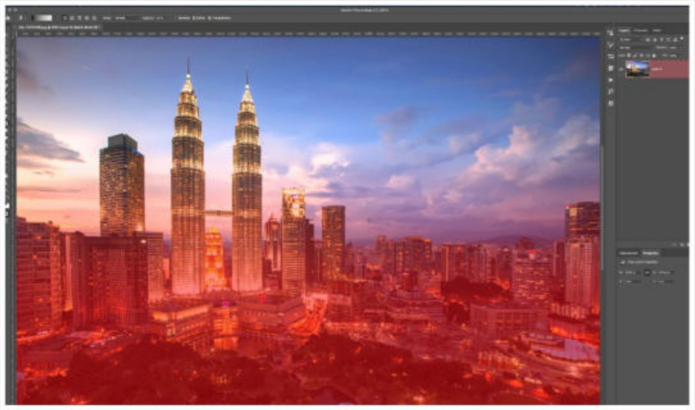
If you make a mistake and overlap your area, simply switch to the white background colour. Painting white will erase the mask.

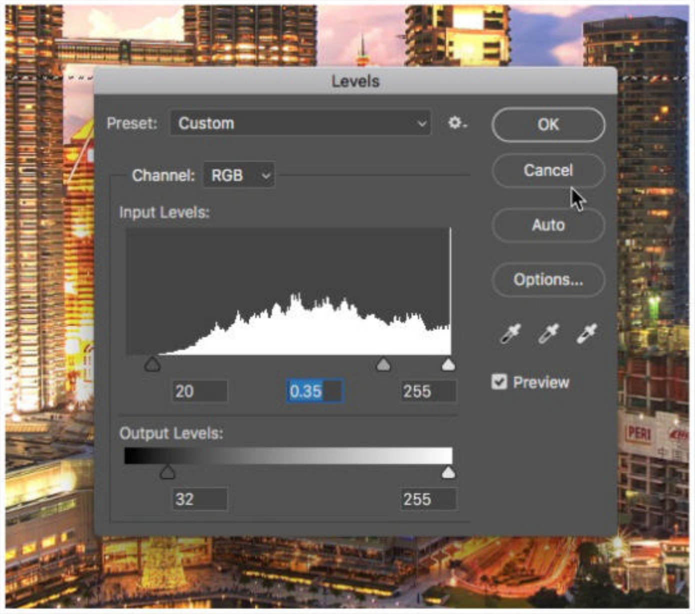

Properties
Adjustments
Character
Document Properties
W: 2066 px
H: 2426 px
X: 0
Y: 0
Resolution: 300 pixels/inch

By using a combination of the two you can mask out even quite complex shapes. If you then toggle out of Quick Mask mode, you'll find that all but the area you've masked will be selected. You can now alter very specific areas of your image, such as just the beak and eye areas on this eagle portrait.

Gradient Mask

There are other ways to apply Quick Mask. For example it can be used with the Gradient Tool to produce gradual mask effects. Simply enter Quick Mask mode, then select the Gradient Tool. Drag a gradient fill over the area you wish to affect and when you release the Mouse button you'll see that the gradient effect is in translucent red, like the painted Quick Mask.



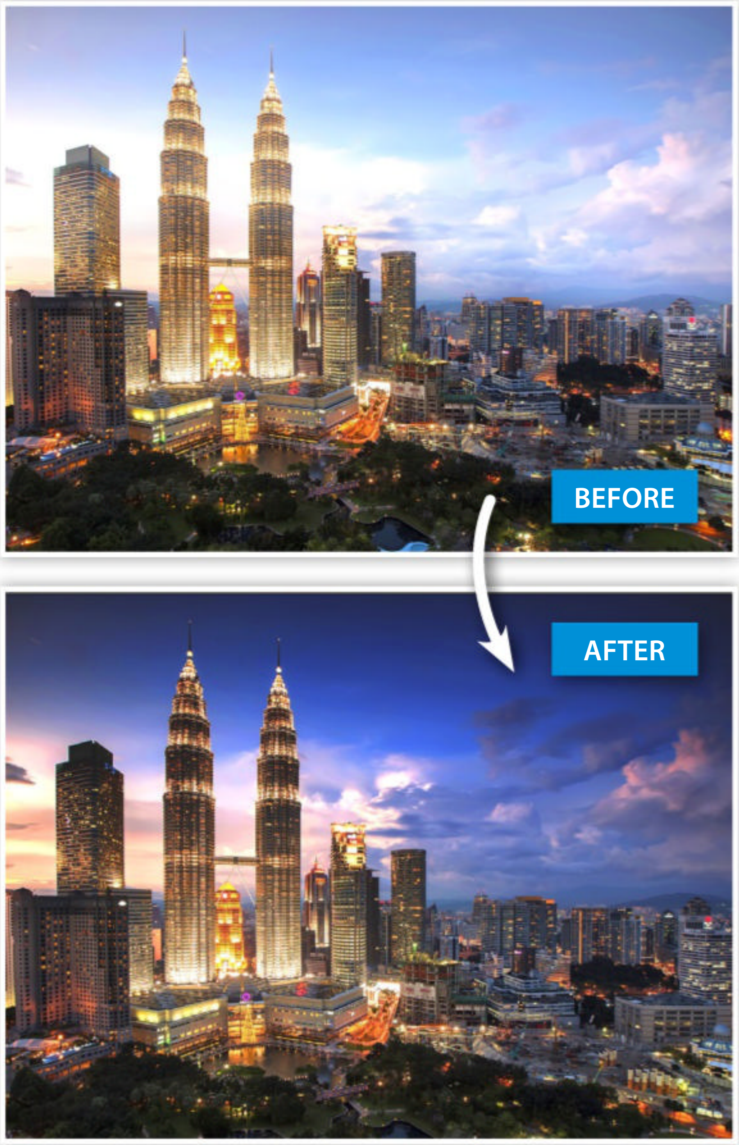

Levels
OK
Cancel
Auto
Options...
Preview

Preset: Custom

Channel: RGB

Input Levels: 20 0.35 255

Output Levels: 32 255


BEFORE
AFTER

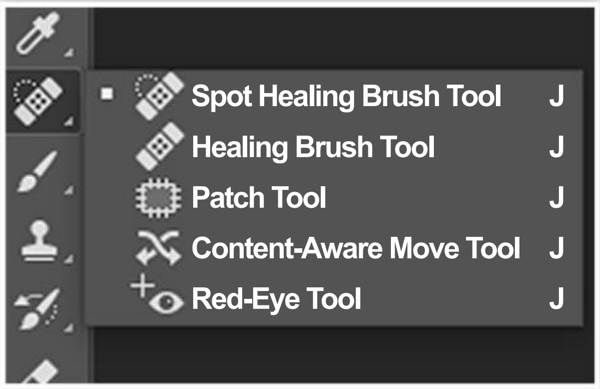
You can now use this gradient mask to produce graduated effects on an image. For instance, on this picture we can darken the sky and leave the foreground as it is by using a graduated Levels function. The gradient mask ensures a smooth transition from the full effect at the upper edge to zero effect at the lower edge of the picture.

Healing Brush Tools

Clean up minor blemishes, dust spots and stray hairs with the Healing Brush Tools

Even with a modern digital camera, your photos may have slight imperfections. Maybe it's just a stray hair or an unwelcome skin blemish in a portrait, or maybe some dust has managed to get onto your sensor, causing dark spots on your photo.

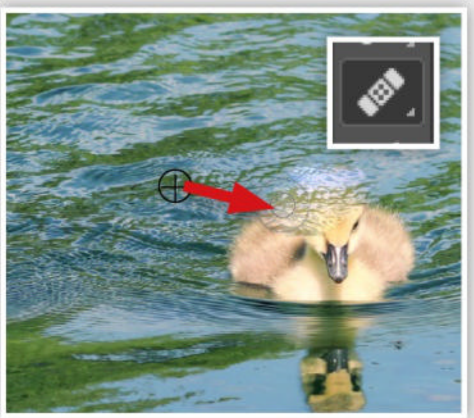
Whatever the reason, sometimes you need to remove some small features from your images and the best tools for this are the Healing Tools. There are five Healing Tools in Photoshop, which you can see if you click and hold on the Spot Healing Brush Tool icon in the tool palette.



USEFUL TIP

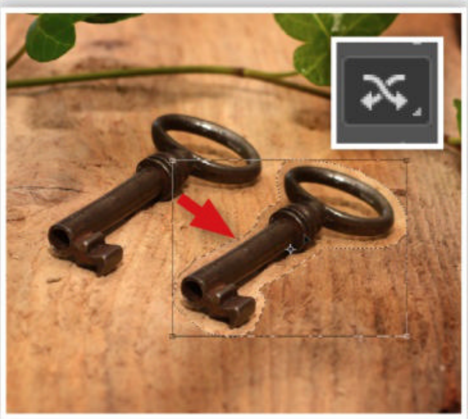
To get the best out of the healing tools, you need to work with care and not overdo the effect. The key to success is to be subtle. There is also no reason you can't use several of the healing brushes to make sure you get a perfectly healed image.

Healing Brush Tool



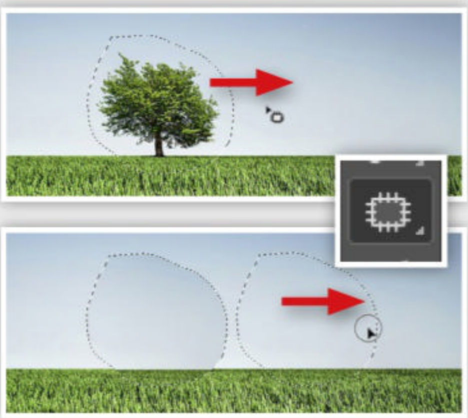
The Healing Brush is a legacy from older versions of Photoshop. It does much the same job as the Spot Healing Brush, but is rather less sophisticated. It works in much the same way as the Clone Stamp Tool. To heal a blemish, you first need to set a sample point by clicking on an area of similar texture while holding down the Alt key, then painting the sample over the blemish. As ever, when it comes to healing and cloning techniques, subtlety is the key. You may find that it might take several attempts to get a good texture that doesn't stand out as being cloned in.

Content Aware Move

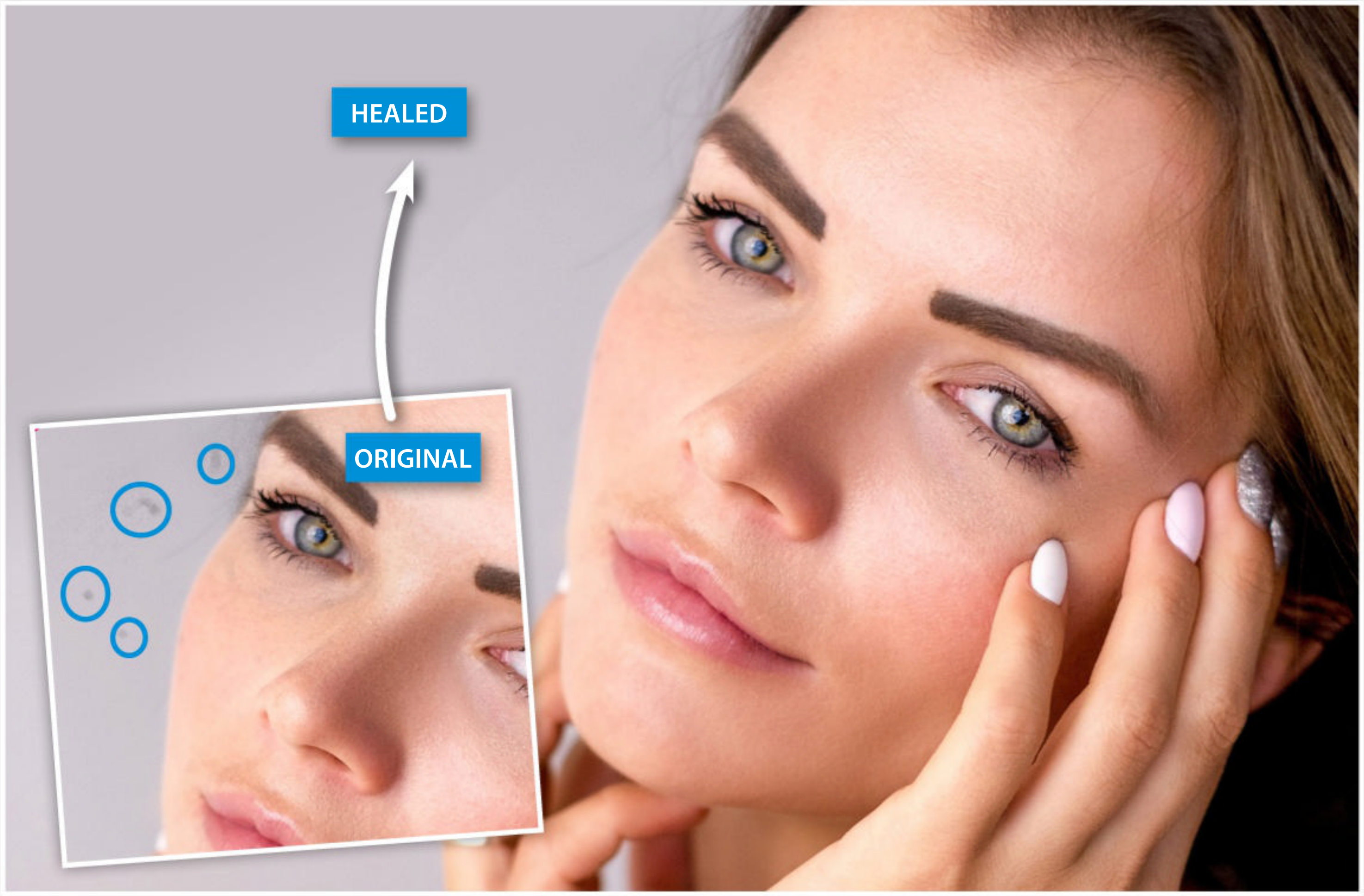


The Content Aware Move Tool was introduced in Photoshop CS6. The idea is that you can simply draw a selection around an object and then drag it to another place. The program analyses the surrounding area and fills in the source with a matching texture. In practice the Content Aware Move Tool is only useful in very specific circumstances, when the object you want to move is surrounded by a uniform texture. You will find that the more even the texture, the better the final result. Backgrounds such as grass and blue sky are much more successful candidates for this.

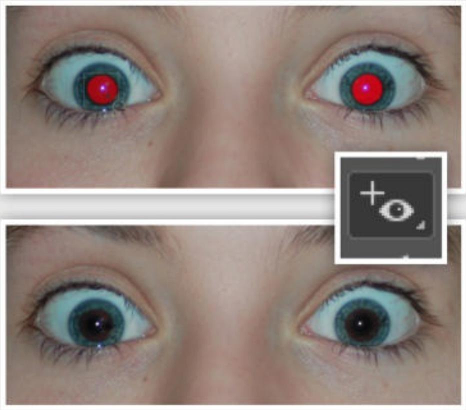
Patch Tool



The Patch Tool is used for repairing larger areas. It can be used in one of two ways; either draw around the area you want to replace and then drag the sample to an area of matching clean texture, or sample an area of clean texture and then drag it over the part you want to replace. Here, a patch of wooden floor can be used to remove some bread crumbs from the shot. As you drag the patch, it will show you a real-time overlay over your target area so you can align it as best you can to ensure a good patch.

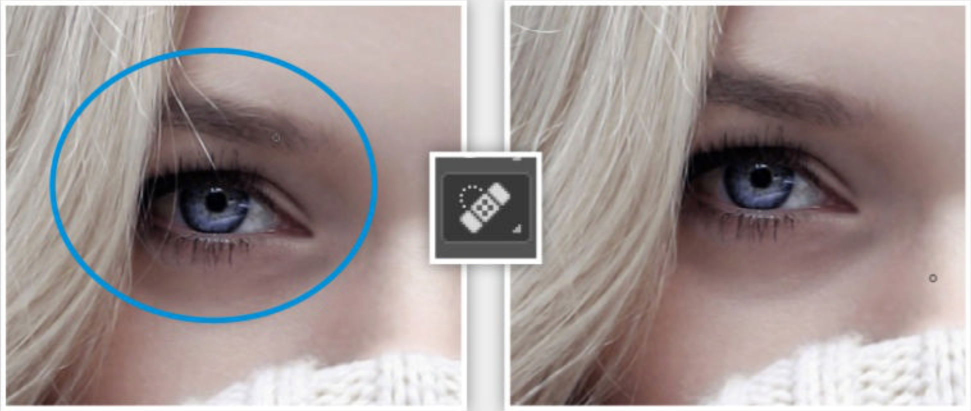


Red Eye Tool



Red Eye is caused by light from a camera flash reflecting off the blood vessels at the back of the eye when the pupil is wide open. It's possible to avoid it by proper camera technique, but if you find it in one of your portraits, Photoshop has a quick and easy tool to help remove it. Simply click on the offending redness and the tool will automatically analyse how much redness there is in the subject's eyes and remove it and replace it with a more natural-looking tone which is usually black or a very dark tone.

Spot Healing Brush Tool



For removing small objects such as dust spots and stray hairs, the Spot Healing Brush is the most useful and effective tool at your disposal. In some cases, you can even remove larger objects and people. When you use it to paint over an object, the brush samples the area around it and replaces the object with a simulation of the background. The way that it samples can be selected and the most effective option is Content Aware sampling. The brush parameters can be adjusted like any other brush.

USEFUL TIP

Camera sensors pick up dust spots over time. Use the Spot Healing Brush to remove unwanted sensor dust spots that appear on your digital images. As you can see from these examples, you can also remove larger objects as long as you have an even background behind it, otherwise the effect might look fake.

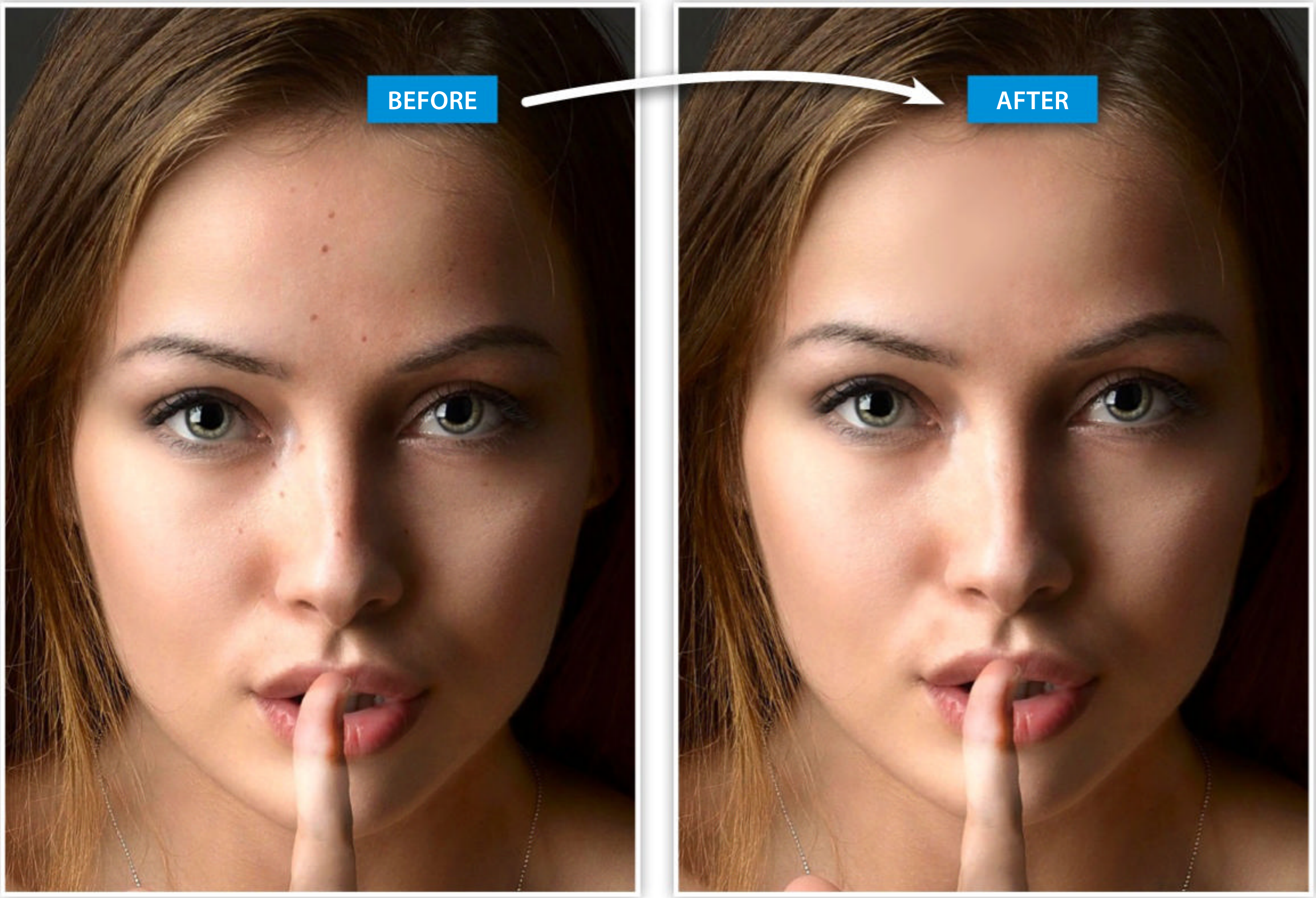
The Clone Stamp Tool

Remove unwanted elements from your photos

USEFUL TIP

Vary brush size by using the open and close square brackets keys and vary brush hardness with the curly brackets.

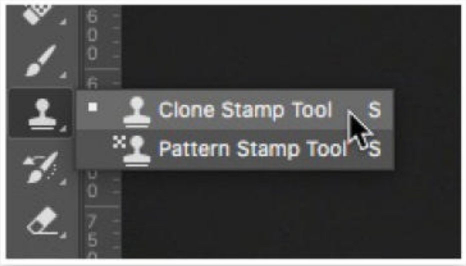
The Clone Stamp Tool (also known as the Clone Brush in some programs) is one of the most useful items in your image editing tool kit. Despite recent developments such as Photoshop's Spot Healing Tool and Content-aware fill, it is still the most precise and reliable way to retouch photographs, allowing you to remove unwanted elements such as dust spots, skin blemishes, lens flare, telephone lines and other intrusive objects from your pictures. Because the process is entirely manual it can be somewhat time-consuming, but the results are often superior to the output of the more modern automatic tools.

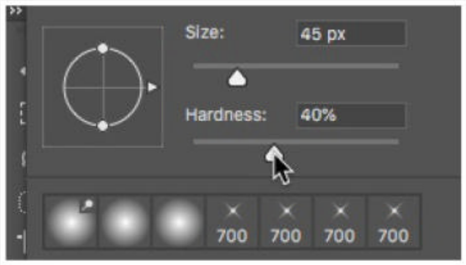


The Clone Stamp works by copying ("cloning") pixels from a selected target area and placing them over the unwanted objects. Using the Clone Stamp, it is relatively straightforward to remove even quite large unwanted objects from a photo. Our example is a close up portrait photo, taken in a studio setting, of a young girl.

We decided it would be a good demonstration of the power of the Clone Stamp Tool to use it for one of its classic purposes. Since Photoshop has been able to do it, retouching skin is one of those techniques that were designed with the Clone Stamp Tool in mind. This girl's portrait reveals some blemishes that can be removed with this tool.

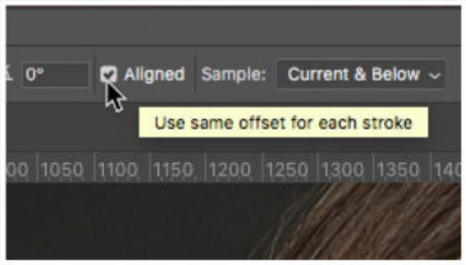
01 Go to your toolbar and select the Clone Stamp Tool (S). For the image we're working on, a brush Size of about 25 - 45 pixels will be fine. You can make the brush Hardness anywhere between 0% - 40%. We're going to start with the blemishes under her left eye.




Size: 45 px

Hardness: 40%

02 Make sure that you have the Aligned option ticked. This means that the sampling area of your brush moves as your brush does, otherwise you will clone the same sampled area repeatedly until you alter it.

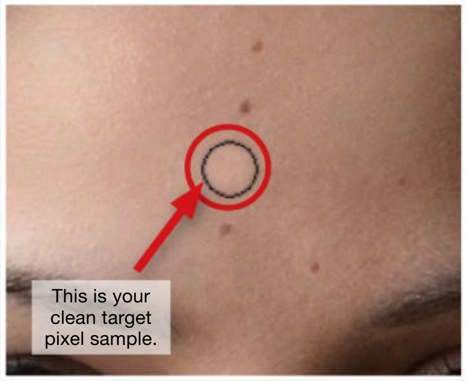

0°

☑ Aligned

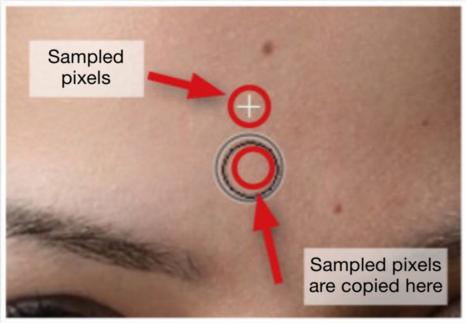
Sample: Current & Below

Use same offset for each stroke

03 Find an area of clean skin next to the blemish and then press your Alt key. A small target icon will appear. Anything under this target will be your sample to be used as the starting point of the cloning. Left-click your mouse to confirm this as your sample area.

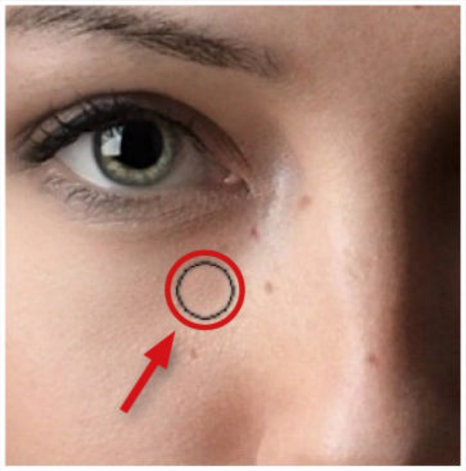

This is your clean target pixel sample.

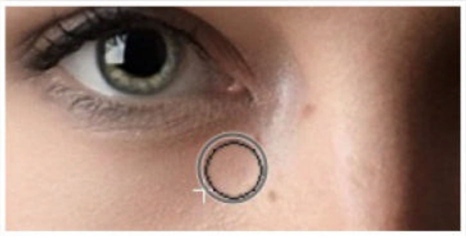
04 Now move your cursor over the top of the face and position it over the small blemish directly below the area you just sampled. It is shown as an overlay so you can see what you are about to clone on top of your figure. If you click your mouse over the blemish, the clean skin just sampled will be cloned over the top of it.

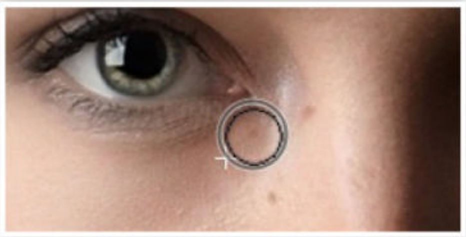

Sampled pixels

Sampled pixels are copied here

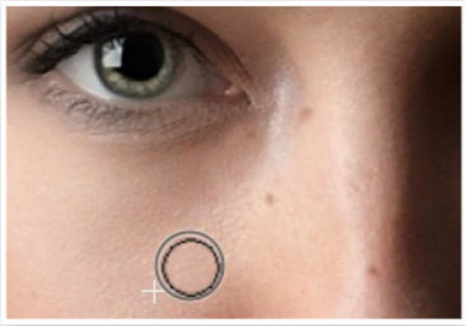
05 You can now choose another clean target sample below her left eye and clone skin from that side over the blemishes just below her eye. If you notice any repeated areas that stand out as being cloned, or differences in brightness and skin tone, you can choose a new target area and clone in some new skin to keep the pattern random.



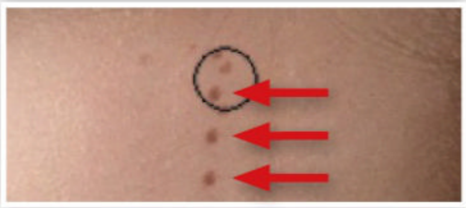




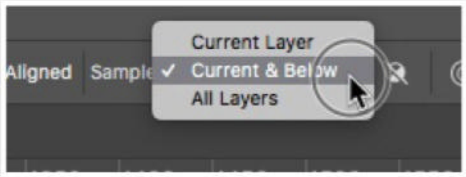
06 Now that you know how to clone a clean area of skin and use it to remove blemishes, you can start to work around the face and remove any other blemishes required..



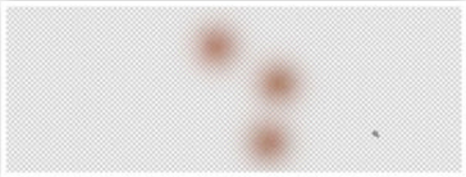
07 As you clone, watch out for any obvious repeating patterns that give the game away. These repeats appear because you have a blemish in your original sampled area which is being stamped over the target skin. Patterns like this highlight the fact that cloning has been used. If you see any patterns like this emerging, you can press Cmd + Z and undo those steps and find a clean area of skin to sample and try cloning over your target area again.



08 Another trick to help you, is to create a new transparent layer and clone your new pixels onto that. Make sure you have Current And Below selected from the Sample: menu. You can then clone onto this clean layer, preserving all the pixels underneath on the base layer.


Aligned

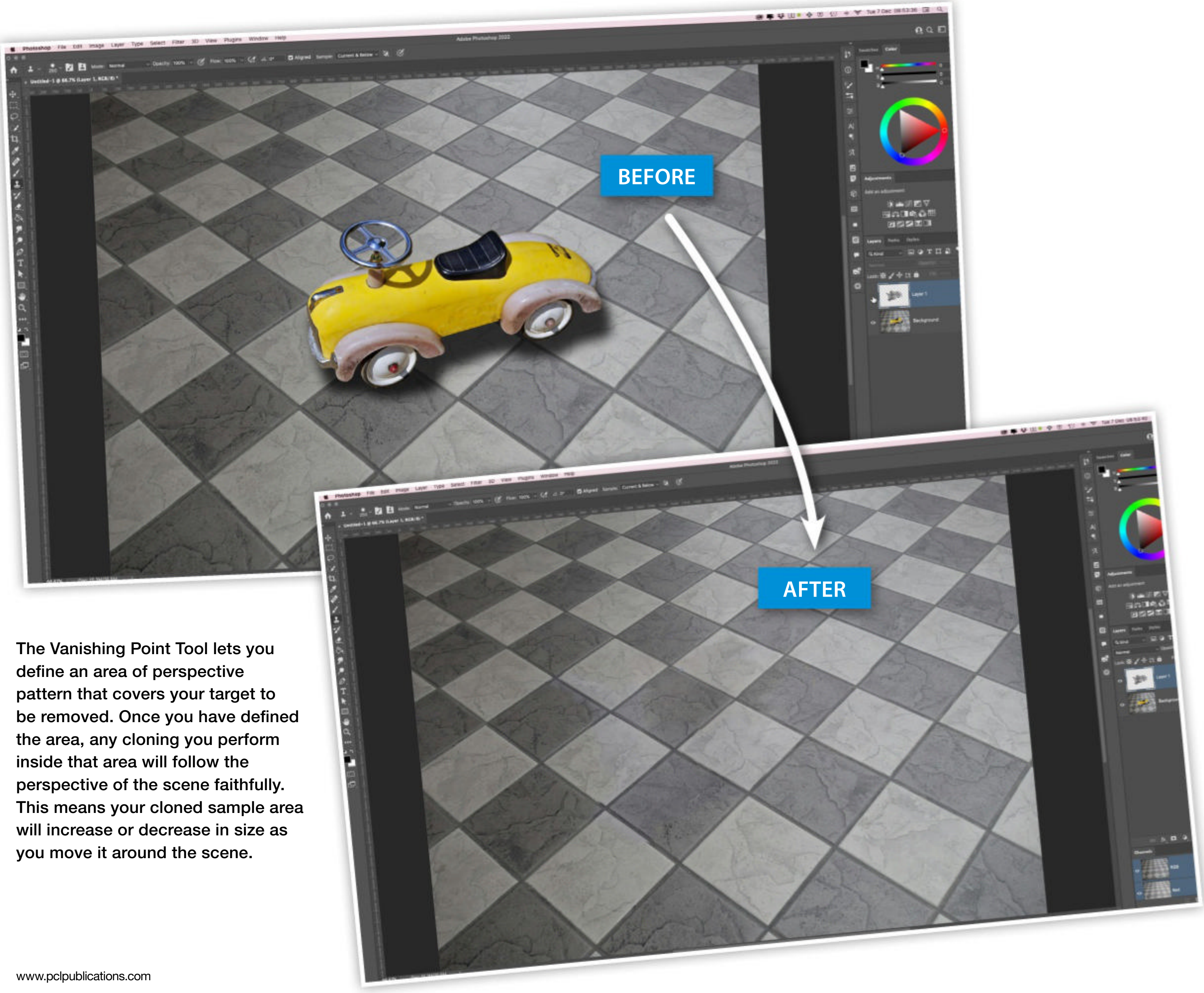
Sample: ✓ Current & Below



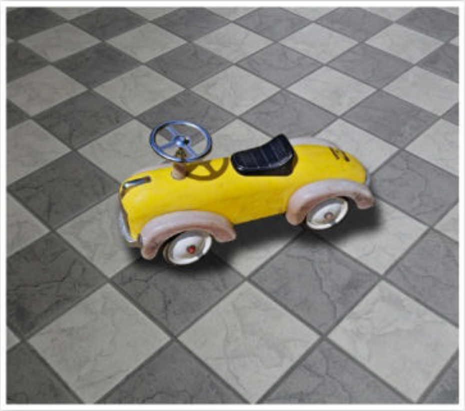
Perspective Cloning

Clone out items accurately using the Vanishing Point tool

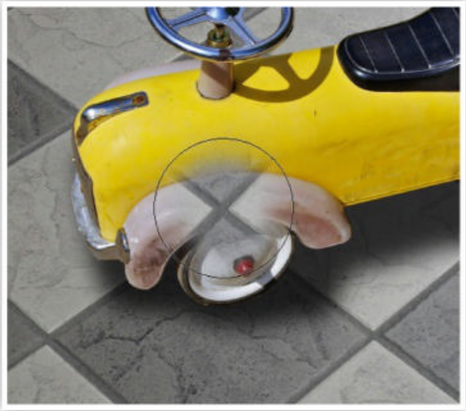
The Clone Stamp Tool is very powerful as we've already seen, but on its own, it does have its limitations. The shortcomings of the Clone Stamp Tool are most obvious when trying to clone out an item that is on top of a very regular pattern with a perspective. The repeating pattern of a brick wall or tiled floor looked at from an angle will appear to recede into the distance and get smaller, or get closer and larger. The Clone Stamp Tool cannot match this perspective on its own and your cloning will look pretty bad. It's ok though. Photoshop has just the tool to help with this tricky form of cloning. It can be found under the Filter menu and is called the Vanishing Point Tool.



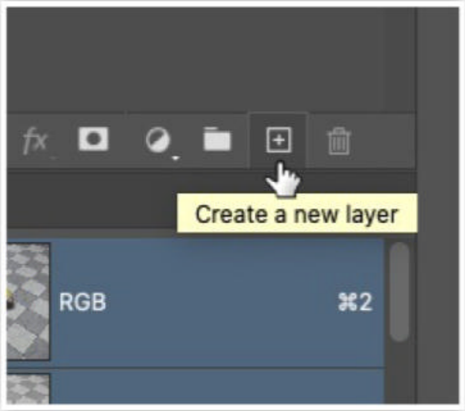
The Vanishing Point Tool lets you define an area of perspective pattern that covers your target to be removed. Once you have defined the area, any cloning you perform inside that area will follow the perspective of the scene faithfully. This means your cloned sample area will increase or decrease in size as you move it around the scene.



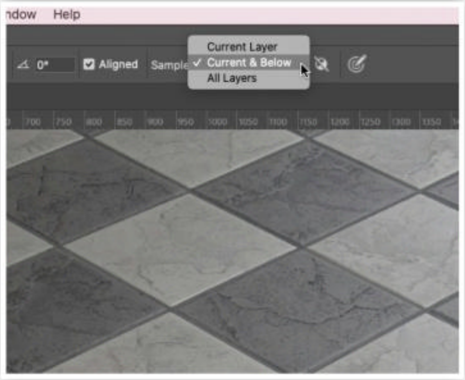
01 We've created a tricky cloning challenge for ourselves. We have a toy car on a tiled floor background. The challenge is going to be to completely remove the toy car and maintain a good tiled pattern and hopefully keep the relative brightness of the tiles intact.



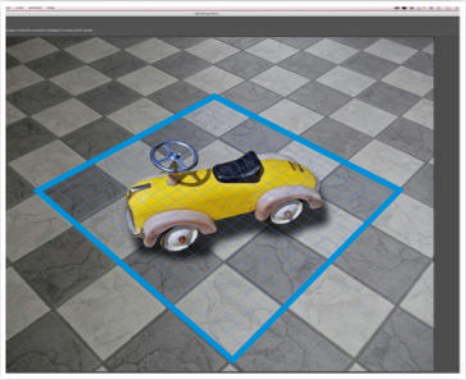
02 In this example, just using the Clone Stamp Tool straight out of the box is going to give you problems. If you sample a clean area of tiled floor near the car and position your cursor over the parts of the car you want to remove, you will see straight away that they won't line up.



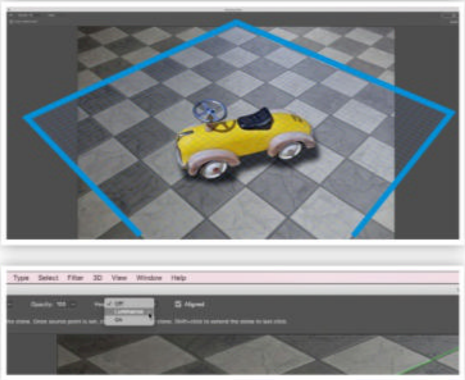
03 We are going to clone out the car, but rather than destroy the original pixel data, we are going to clone onto a new layer so we can do it as a non-destructive edit. Go to the layers palette and click on the Create a New Layer button. The new layer appears above the base image.



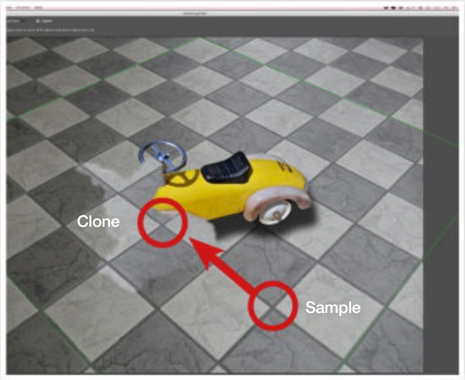
04 With the new layer selected, make sure that in the menu bar, the Sample option is set to Current & Below. This means that data will be cloned from the base image and placed on the layer above so as not to destroy the original image that you started with.



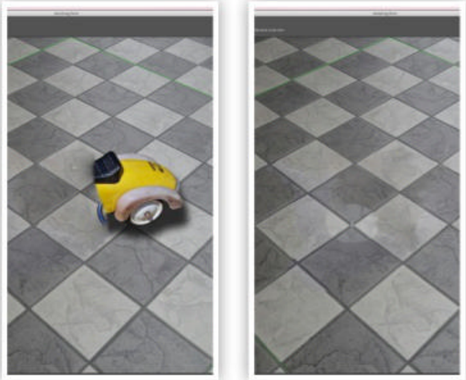
05 Keep the new layer active and choose Filter > Vanishing Point from the menu. This opens the Vanishing Point panel. Next, click on an area that covers the car and adheres to the corners of the tiles. This area you've defined will control how the cloned samples match the perspective.



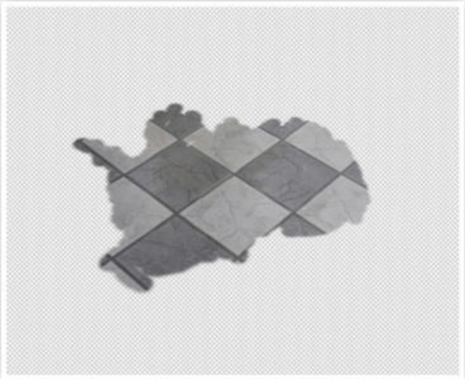
06 Click and drag the box you've created and make it bigger to give you more sampling areas to work with. This is fine as it will follow the perspective of the tiled floor precisely. Before you start cloning, make sure Heal is set to Luminance so cloned areas are the correct brightness.



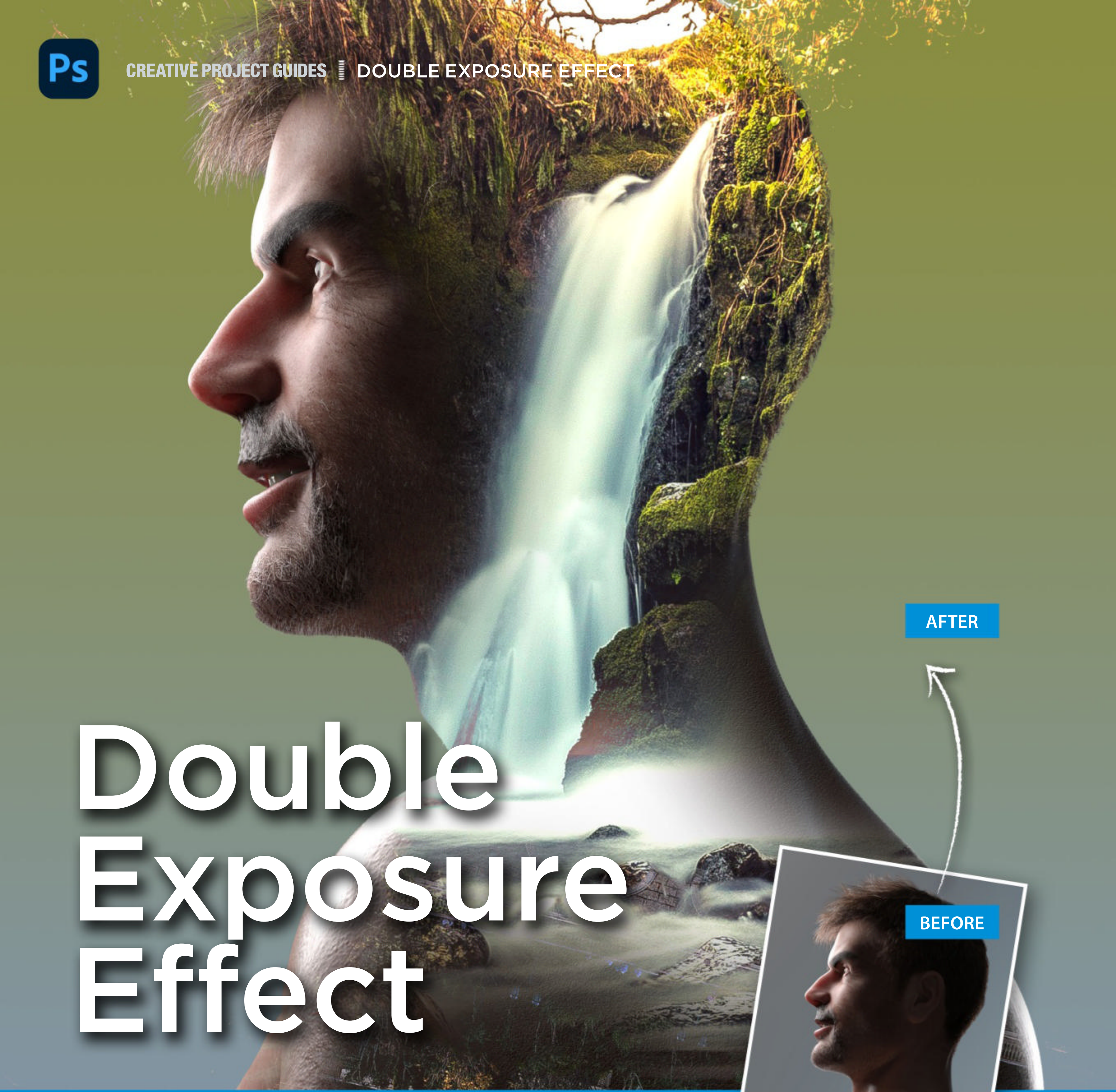
07 Click the Stamp Tool (S) and Alt + Left-Click to define a clean area of tile. Use a point where tiles intersect and then move your cursor over a corresponding area of tile with the car on it and start to paint out the car. The Luminance Heal will make the cloned areas the correct brightness.



08 Work your way around the car in small increments. You can Alt + Left-Click to re-sample a new area of clean tile at any point. Once the car is removed, you can go over any slight mismatched areas and do a final clean up until you have the tiled floor empty.



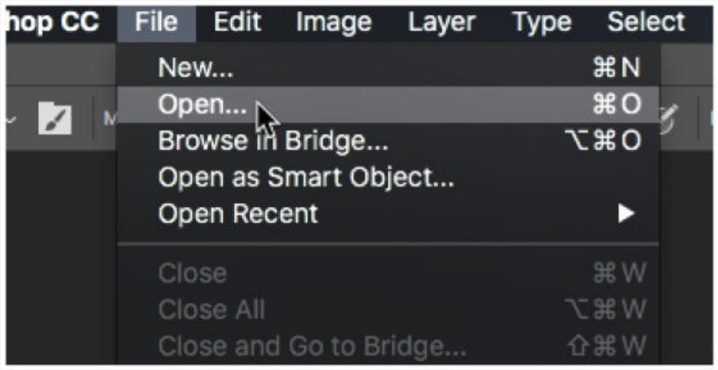
09 Once done, click OK to commit the all the cloning changes and return to your main document. If you look at the new layer you created, all your cloning work is on that layer and the original image containing the car is completely untouched. This is the beauty of layer-based editing.

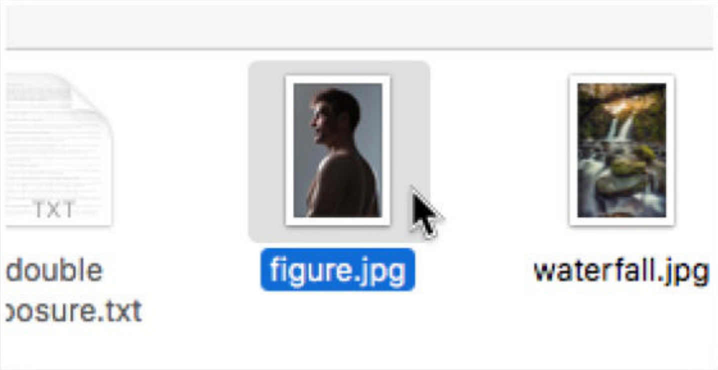


Double Exposure Effect

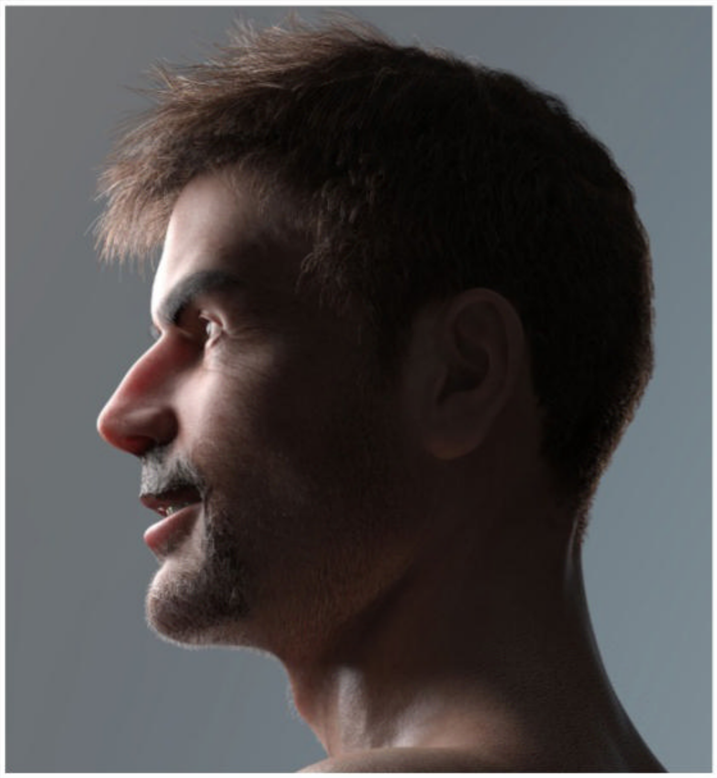
We pay a digital Photoshop homage to a classic technique

Double or multiple exposure photography is another reference to the more traditional methods of image capture where a photographer would expose one frame of film more than once to achieve a surreal look in the final image. A downside to this method was that you could never be certain of what effect you were actually achieving until the negative was developed and a print was made in the darkroom. An alternative method was to stack two negatives in the enlarger at printing stage. These days of course, we can explore the creative aspects of combining multiple images on our computers with effects that can be edited and adapted exactly to suit our needs. For our example, we are going to combine a graphic image of a man with a city skyline and a waterfall scene. Here's how we go about creating our double exposure image.

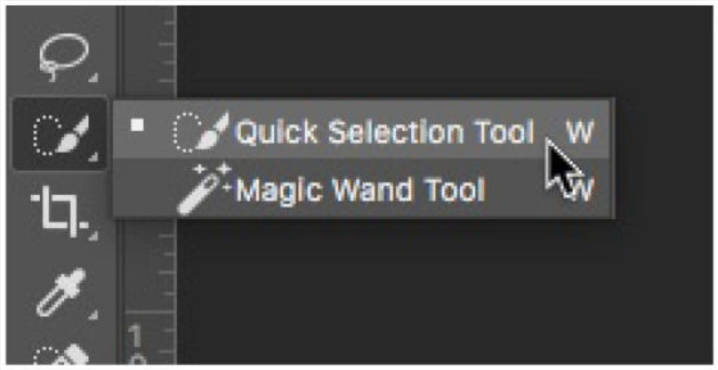

hop CC
File
Edit
Image
Layer
Type
Select
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent ▶
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W

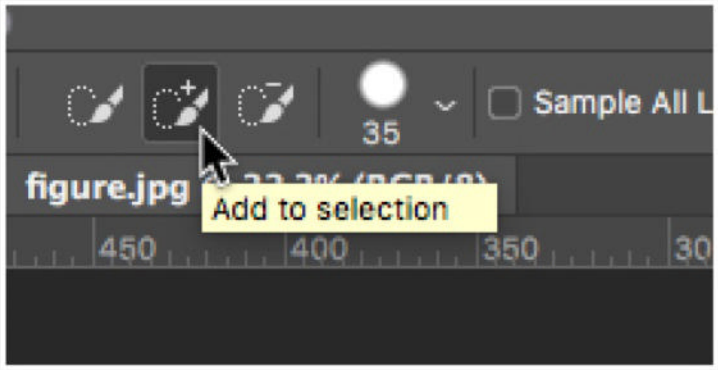

TXT
double
osure.txt
figure.jpg
waterfall.jpg

01 Go to File > Open and navigate to the 'figure.jpg' file. Press Open and the image will open in Photoshop. It is a graphic image of a man with a plain background. The image is 3000 pixels high by 2000 pixels wide.

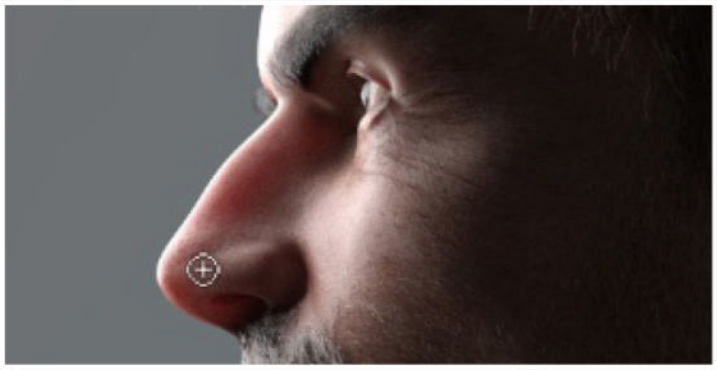


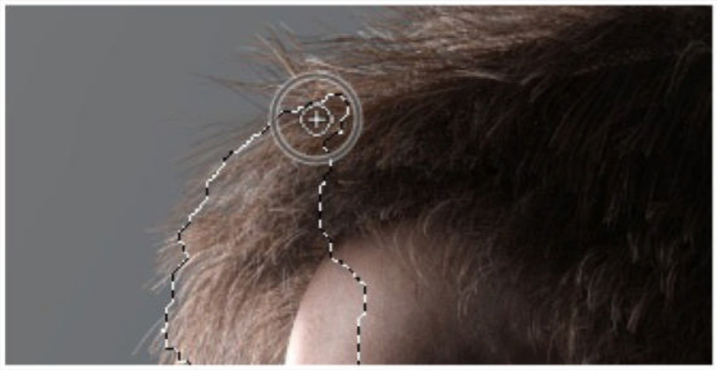
02 A picture that has either a plain background that is easy to remove your subject from, or has them against white is key to how this process works. In this case, our image should be quite easy to separate from its background as it has a well defined edge.


Quick Selection Tool W
Magic Wand Tool W

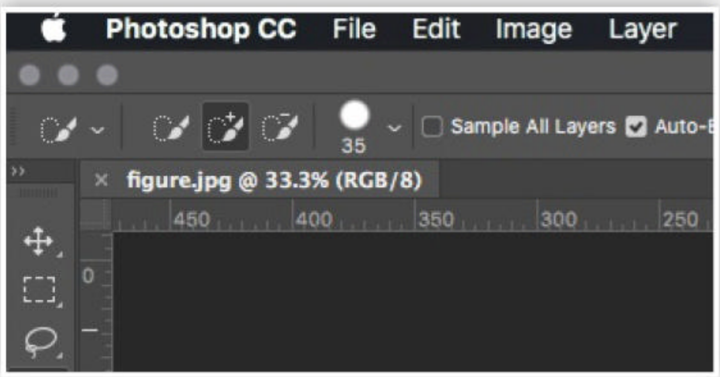

35
Sample All L
figure.jpg
Add to selection
450
400
350
30

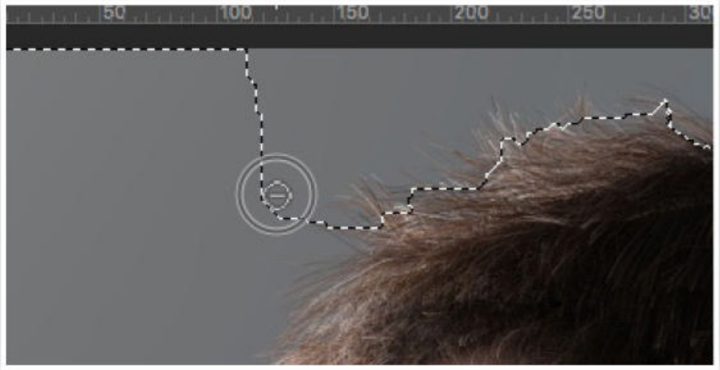
03 Go to the toolbar and choose the Quick Selection Tool (W). In the tool option menu above, make sure that the Add To Selection option is checked and the brush size is about 35. This just ensures you begin the process of creating a new selection correctly.



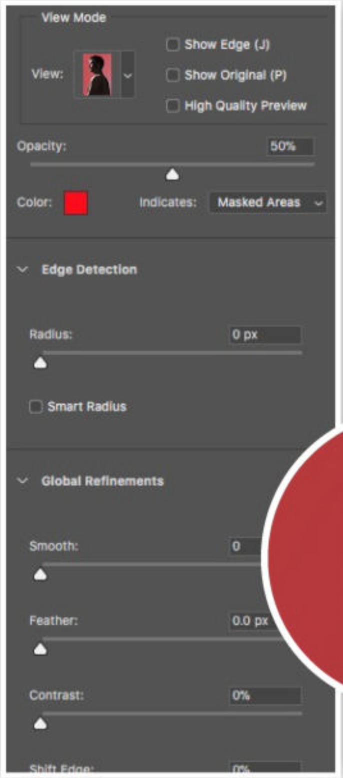


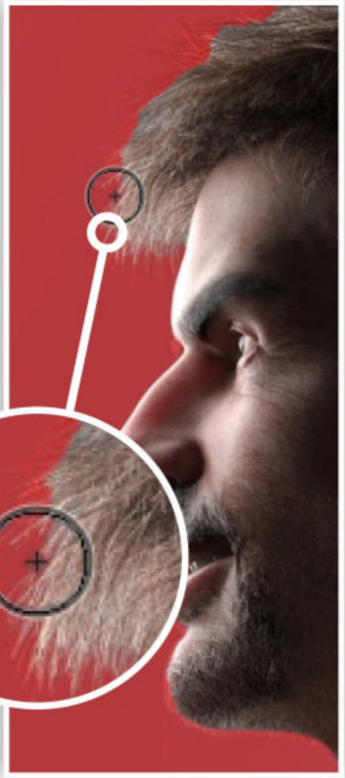
04 Click your cursor within the edge of the image and hold the mouse button. Carefully drag your cursor around the edge of the figure but make sure you don't stray outside. Keep the cursor within the outline of the man. A selection will be created automatically.


Photoshop CC
File
Edit
Image
Layer
35
☐ Sample All Layers
☑ Auto-E
figure.jpg @ 33.3% (RGB/8)
450
400
350
300
250
0

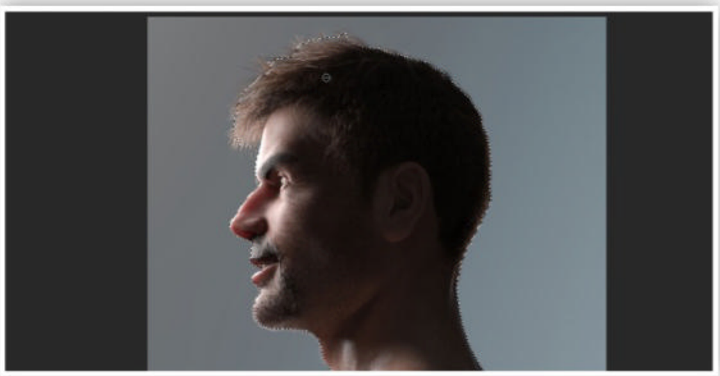

50
100
150
200
250
30

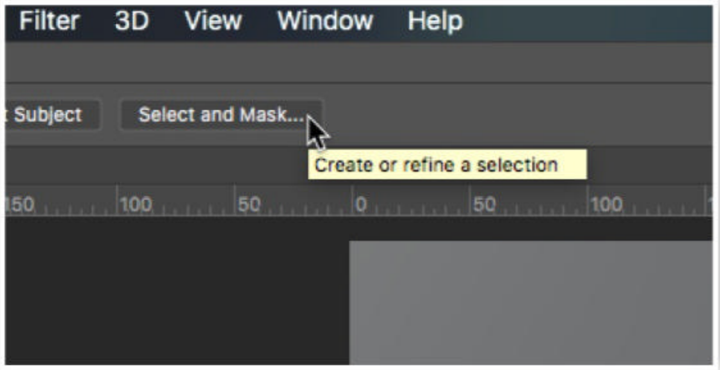
05 If you do find the selection jumps outside the edge of the figure, you can go to the tool option menu and change the selection mode to Subtract From Selection. Drag your cursor over areas that have strayed outside to remove them.


View Mode
View:
☐ Show Edge (J)
☐ Show Original (P)
☐ High Quality Preview
Opacity:
50%
Color:
Indicates:
Masked Areas
Edge Detection
Radius:
0 px
☐ Smart Radius
Global Refinements
Smooth:
0
Feather:
0.0 px
Contrast:
0%
Shift Edge:
0%

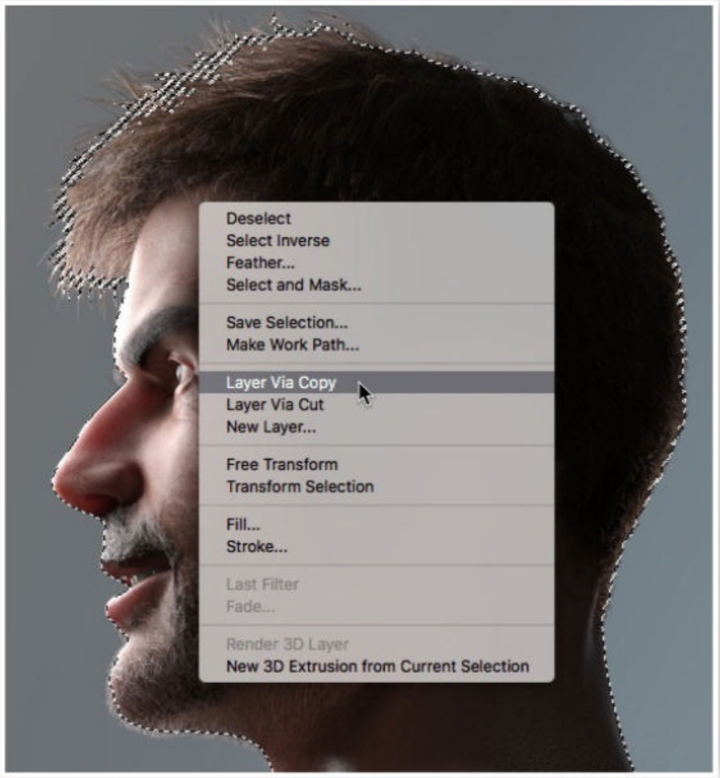


07 You can keep Select And Mask at its default settings, just use a small brush and pain over areas such as the hair. When you do, it will attempt a more detailed and refined selection of those areas. When you are ready, click OK to proceed.

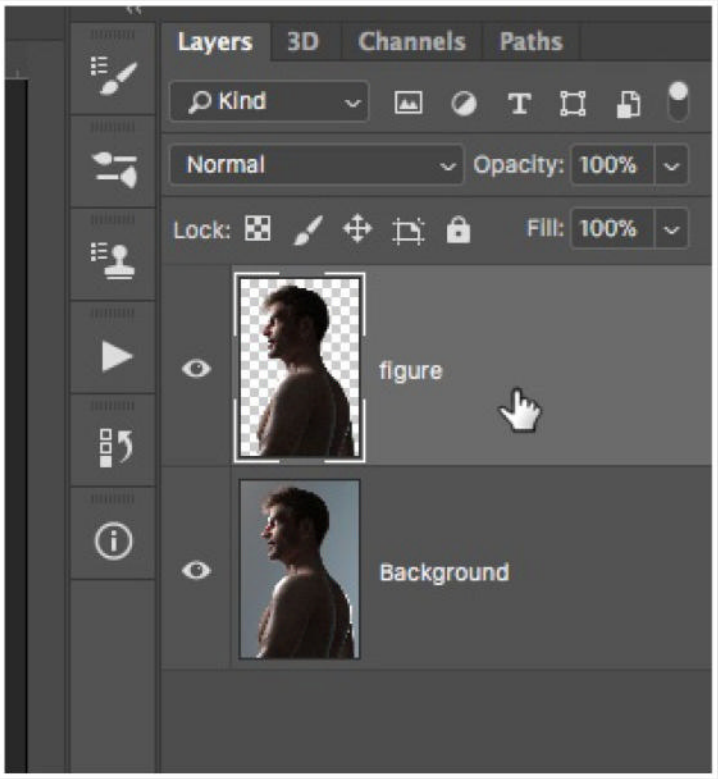



Filter
3D
View
Window
Help
Subject
Select and Mask...
Create or refine a selection
150
100
50
0
50
100

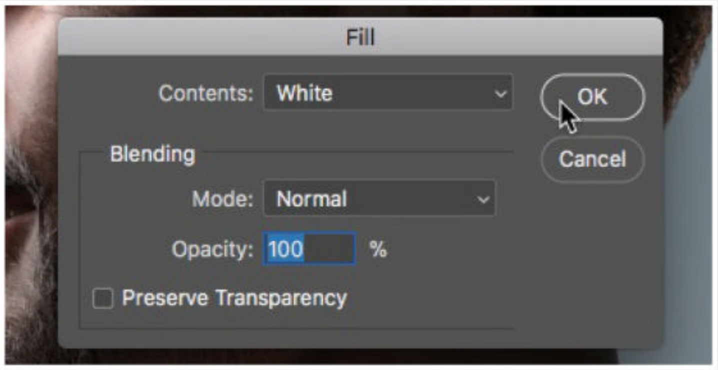
06 Once you have your main figure selected, you can then choose Select And Mask from the top menu panel. This will allow you to refine and enhance any areas of the selection that were too detailed for the Quick Selection Tool to identify.


Deselect
Select Inverse
Feather...
Select and Mask...
Save Selection...
Make Work Path...
Layer Via Copy
Layer Via Cut
New Layer...
Free Transform
Transform Selection
Fill...
Stroke...
Last Filter
Fade...
Render 3D Layer
New 3D Extrusion from Current Selection

08 The selection you made will be updated and you will notice that the area around the hair is much more accurate than it was when you started. Now, right-click on the selection and choose Layer Via Copy from the dropdown menu that appears.


Layers
3D
Channels
Paths
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
figure
Background

09 This will create a new layer and will copy just the contents of your selection into it. The rest of the new layer will be transparent. Name this new layer 'figure'. This will be the base upon which you will build your multiple exposure technique.


Fill
OK
Cancel

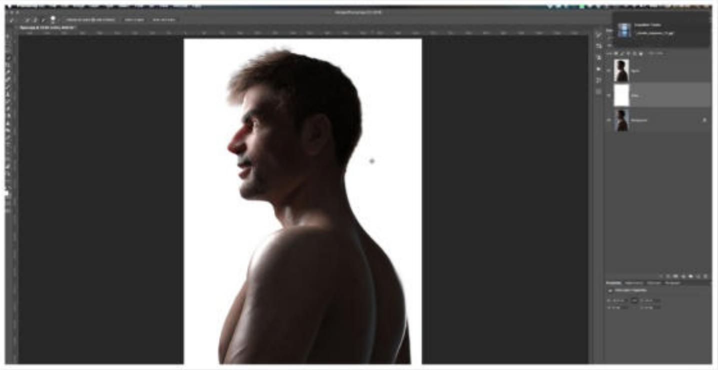
Contents: White

Blending

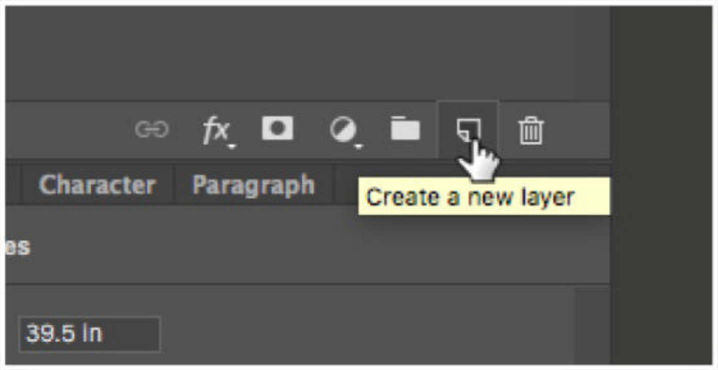
Mode: Normal

Opacity: 100 %

☐ Preserve Transparency



11 Go to Edit > Fill (Shift + F5) to call up the Fill dialog box. Choose white as your fill colour and Blending Mode Normal. Keep Opacity at 100% and make sure that the Preserve Transparency button is not checked. Click OK to proceed and fill the layer white.


fx
Character
Paragraph
Create a new layer
39.5 in

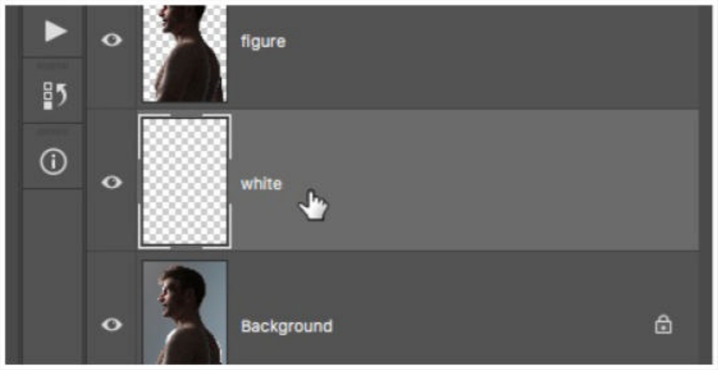
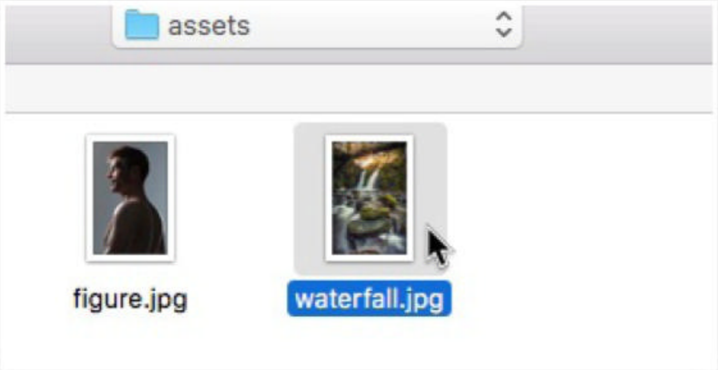
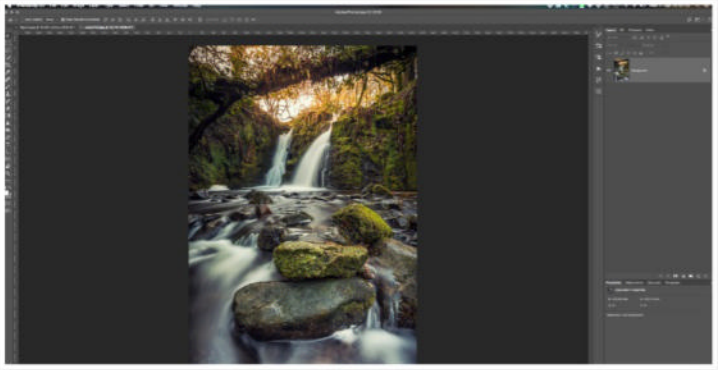


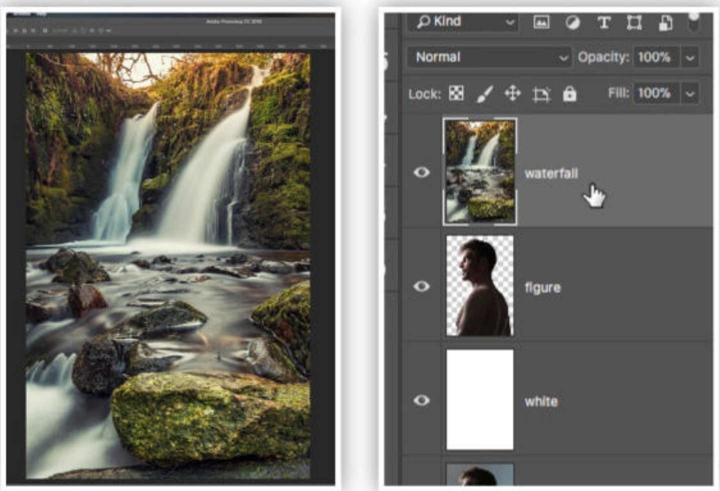
figure
white
Background

10 In the layer options panel, click on the Create A New Layer button to make a new blank layer. Make sure this new layer sits between the 'figure' layer and your original 'background' layer. Name this new layer 'white'.


assets
figure.jpg
waterfall.jpg



12 Next, go to File > Open once more and navigate to the image called 'waterfall'. Click Open and it will open in Photoshop as a new document. Press Cmd + A to select all, then press Cmd + C to copy the photo to the clipboard.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
waterfall
figure
white

13 Go back to your original document and press Cmd + V to paste the image of the waterfall into your working document. A new layer will be created when you do. Call the new layer 'waterfall' and make sure it is at the top of the layer stack above your figure.

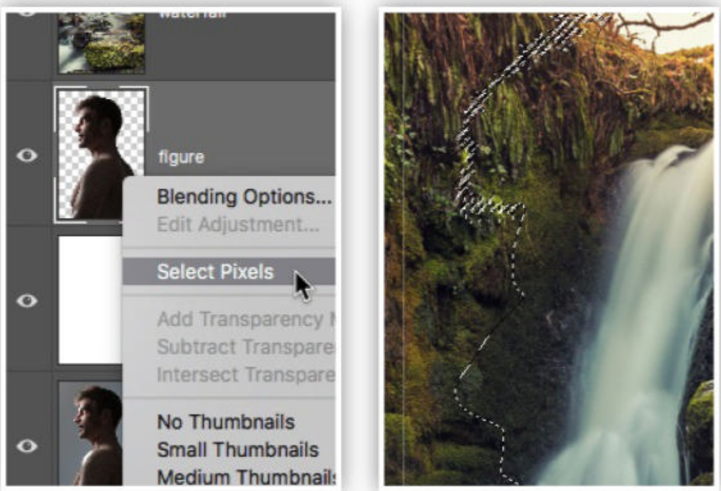
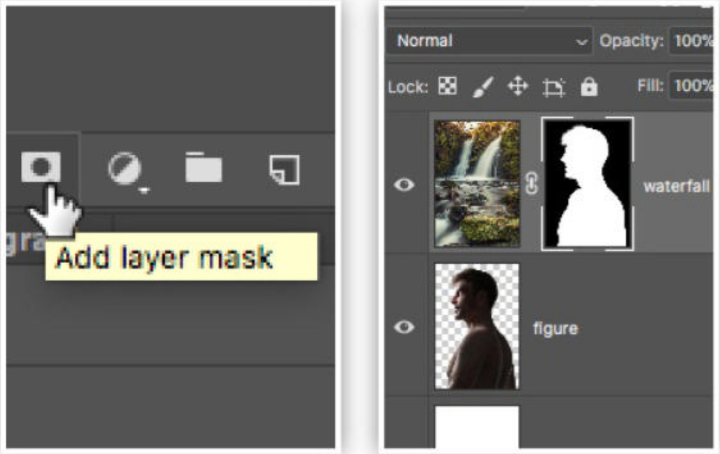
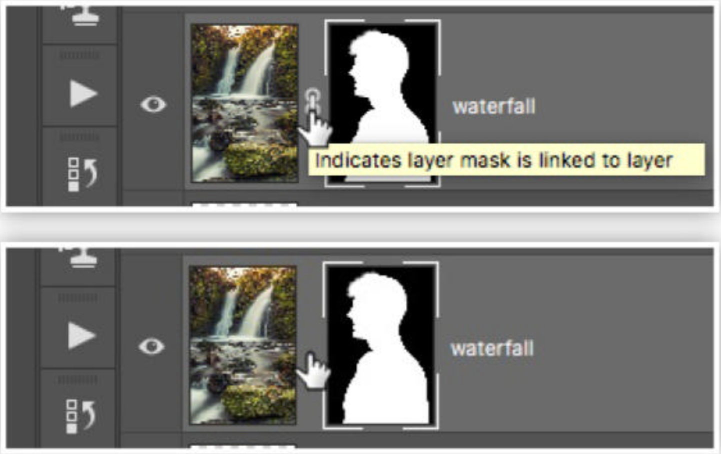


figure
Blending Options...
Edit Adjustment...
Select Pixels
Add Transparency
Subtract Transpare
Intersect Transpare
No Thumbnails
Small Thumbnails
Medium Thumbnail

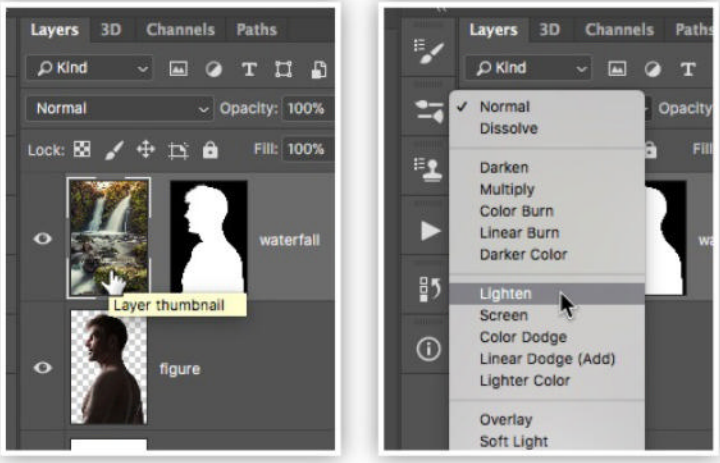
14 Click on the 'figure' layer thumbnail to activate it and right-click with your mouse to call up a context menu. Choose Select Pixels from the list. A selection of the outline of the figure will be created, denoted by the 'marching ants'.


Add layer mask
Normal
Opacity: 100%
Lock:
Fill: 100%
waterfall
figure

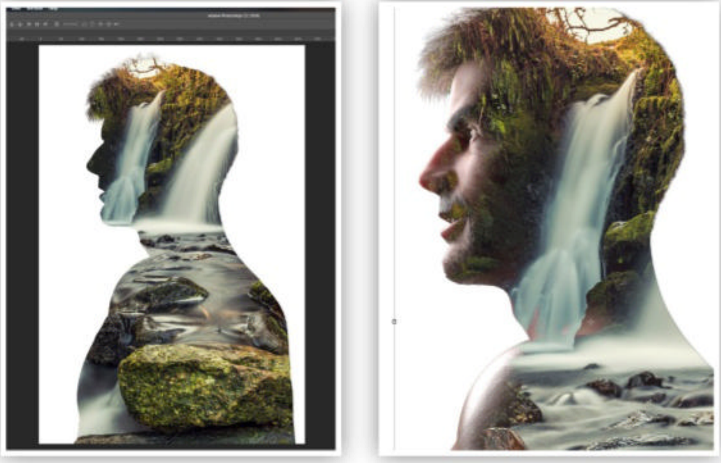
15 Click on the 'waterfall' layer to make it active once more. Then go to the layer options menu and click Add Layer Mask. A layer mask will be added to the 'waterfall' layer in the shape of the figure. The black areas of the mask conceal part of the waterfall image.


waterfall
Indicates layer mask is linked to layer
waterfall

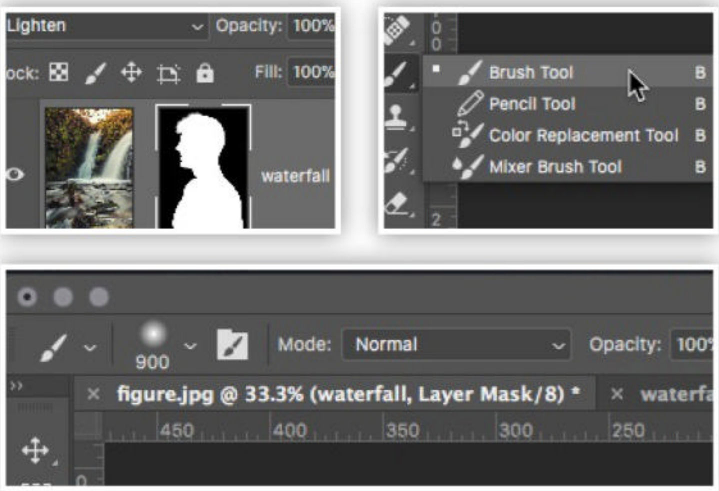
16 Since you need to move the waterfall image around and scale it, you need to make sure the mask remains unaffected by these transformations. To do that, click on the small chain icon between the 'waterfall' layer and mask thumbnails to unlink them.


Layers
3D
Channels
Paths
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
waterfall
Layer thumbnail
figure
Normal
Dissolve
Darken
Multiply
Color Burn
Linear Burn
Darker Color
Lighten
Screen
Color Dodge
Linear Dodge (Add)
Lighter Color
Overlay
Soft Light

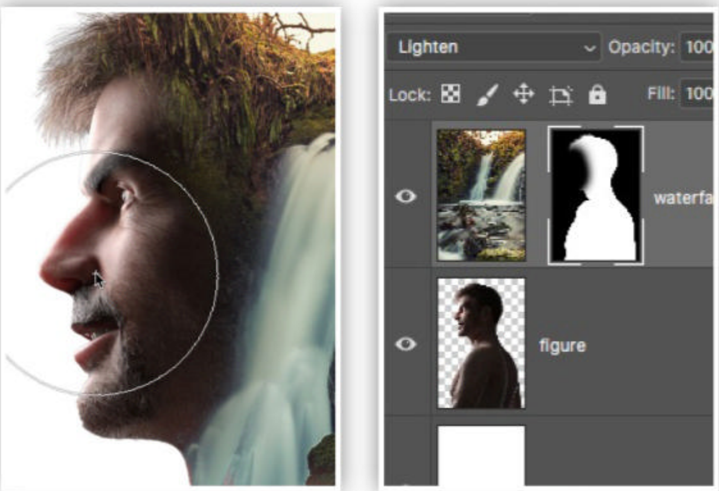
17 Click the 'waterfall' layer thumbnail to make it active and then go to the Blend Mode panel and choose Lighten. The image of the figure below will appear in places where it is brighter than the waterfall photo above it.



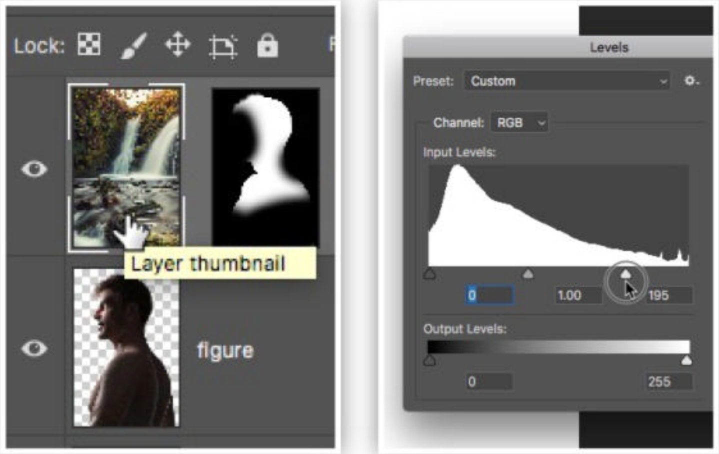
18 Now you can press Cmd + T to scale, rotate or move the waterfall image around until you have a composition that you like. We scaled the photo and moved it so a part of the waterfall was cascading down the side of the man's head.


Lighten
Opacity: 100%
Fill: 100%
waterfall
Brush Tool B
Pencil Tool B
Color Replacement Tool B
Mixer Brush Tool B
900
Mode: Normal
Opacity: 100%
figure.jpg @ 33.3% (waterfall, Layer Mask/8) *

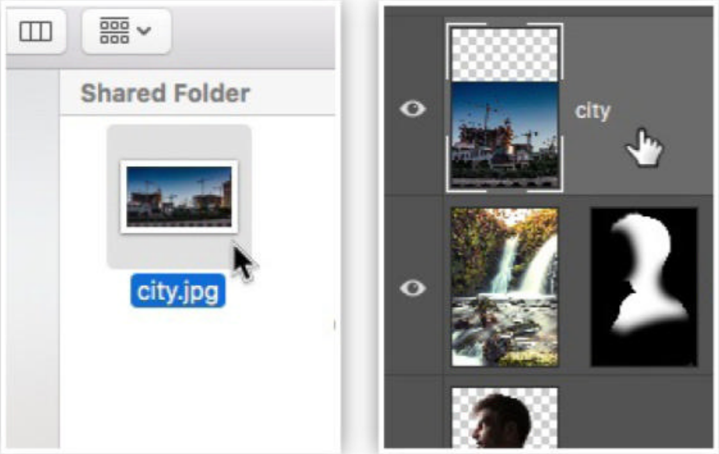
19 Now click on the ‘waterfall’ layer mask thumbnail to make it active. Go to the toolbar and choose the Brush Tool (B). Set the foreground colour to black and from the top options menu, choose a soft brush of about 900 pixels.


Lighten
Opacity: 100
Fill: 100
waterfa
figure

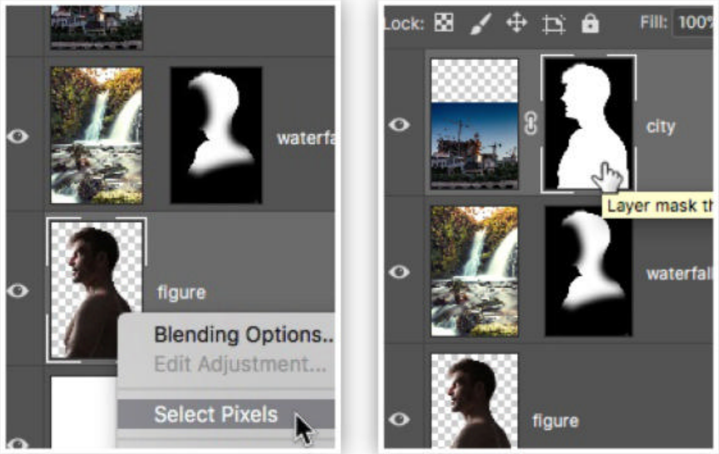
20 You can paint black onto parts of the ‘waterfall’ layer mask in order to reveal more of the man’s face on the layer below. Simply use the brush to apply black around his facial area to the layer mask. You can also apply black to mask areas around his back and arms.


Lock:
Layer thumbnail
figure
Levels
Preset: Custom
Channel: RGB
Input Levels:
0
1.00
195
Output Levels:
0
255

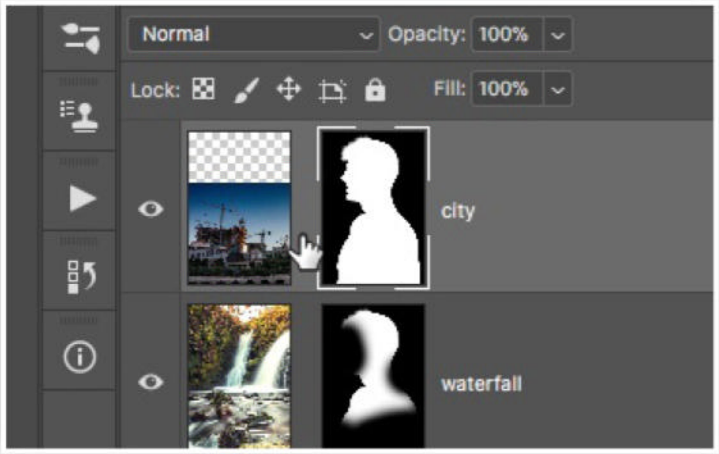
21 Now click back on the ‘waterfall’ layer thumbnail to make it active again. Go to Image > Adjustments > Levels (Cmd + L). Click and drag the Highlights tab to the left, to boost the contrast and brightness of the image a little.


Shared Folder
city.jpg
city

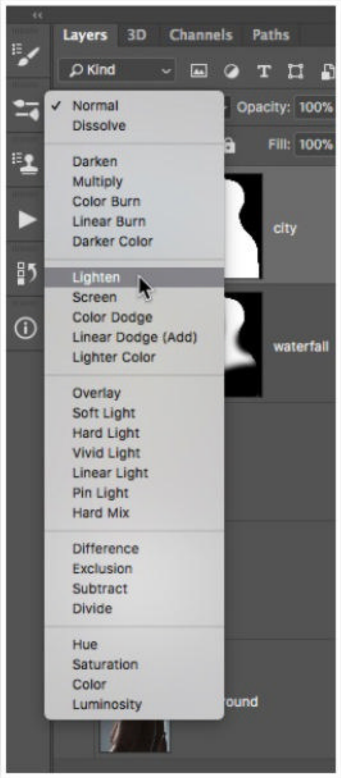
22 You can add more elements to this image if you want. Go to File > Open and navigate to the ‘city.jpg’ image and copy that into the document as you did with the waterfall photograph. Make sure this new image is in a layer at the top of the stack.

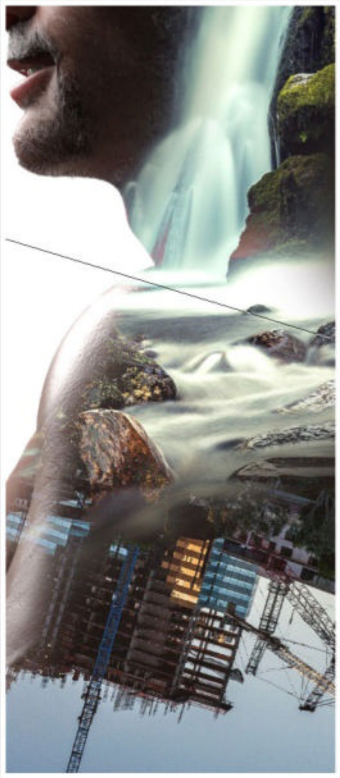

waterfa
figure
Blending Options...
Edit Adjustment...
Select Pixels
Lock:
Fill: 100%
city
Layer mask th
waterfall
figure

23 You can name the layer ‘city’. Don’t worry about exact placement of the city photo just yet. Just as you did in step 14, use the ‘figure’ layer to Select Pixels and use that selection to add a layer mask to the ‘city’ layer.

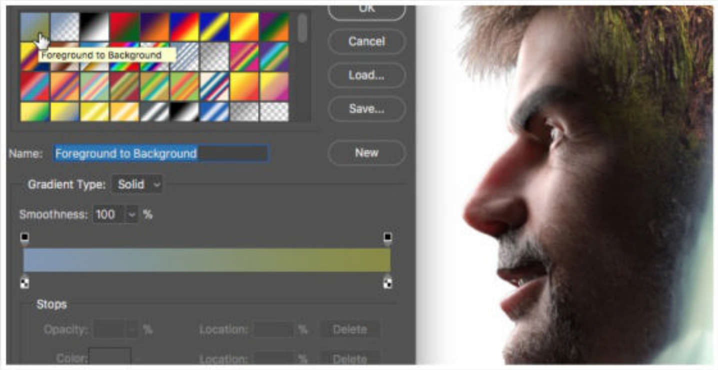

Normal
Opacity: 100%
Lock:
Fill: 100%
city
waterfall

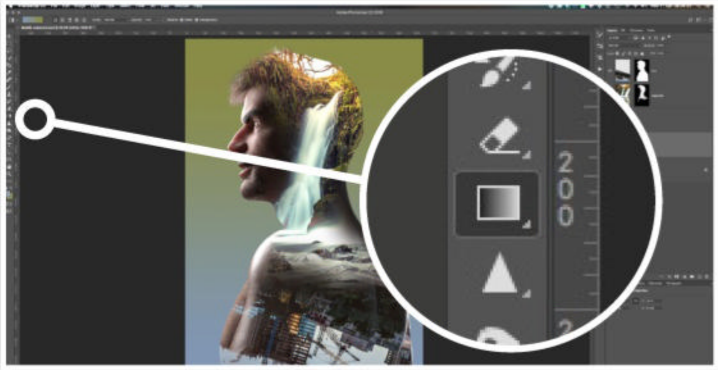
24 Unlink the layer mask and the ‘city’ layer thumbnails as you did with the ‘waterfall’ layer in step 16. You’re going to move and rotate the photo in the same way you did with the waterfall but again, you don’t want the mask to move when the image moves.


Layers 3D Channels Paths
Kind
✓ Normal
Dissolve
Darken
Multiply
Color Burn
Linear Burn
Darker Color
Lighten
Screen
Color Dodge
Linear Dodge (Add)
Lighter Color
Overlay
Soft Light
Hard Light
Vivid Light
Linear Light
Pin Light
Hard Mix
Difference
Exclusion
Subtract
Divide
Hue
Saturation
Color
Luminosity
Opacity: 100%
Fill: 100%
city
waterfall
ound

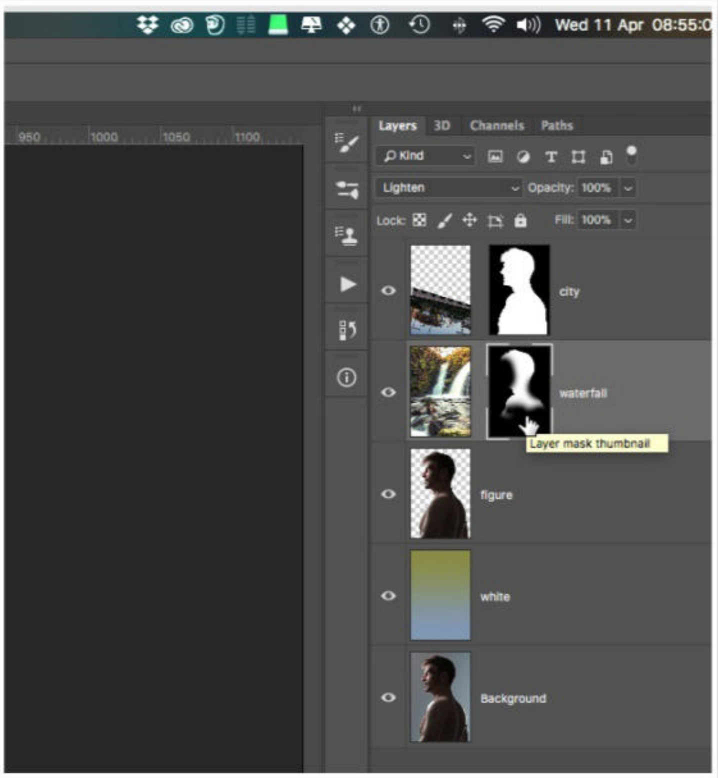


25 Make sure the Blend Mode for the 'city' layer is set to Lighten. Now you should be able to move the photo around and scale it to suit your taste. We actually rotated the skyline so it is upside down and placed it near the bottom of the composition.

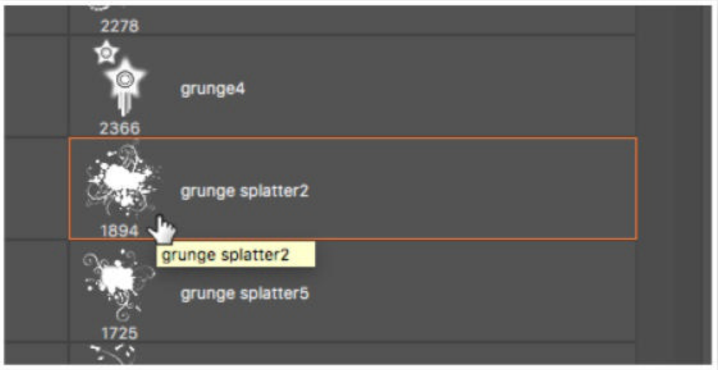

Foreground to Background
Cancel
Load...
Save...
Name: Foreground to Background
New
Gradient Type: Solid
Smoothness: 100 %
Stops
Opacity: %
Location: %
Delete
Color:
Location: %
Delete

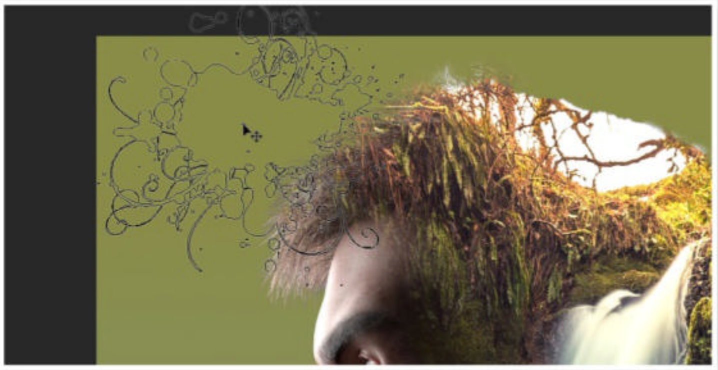


27 It doesn't have to stop there. If you want, you can turn the 'white' layer into a colour, or a graduated blend of blue and green as we've done here, using the Gradient Tool (G) from the toolbar.

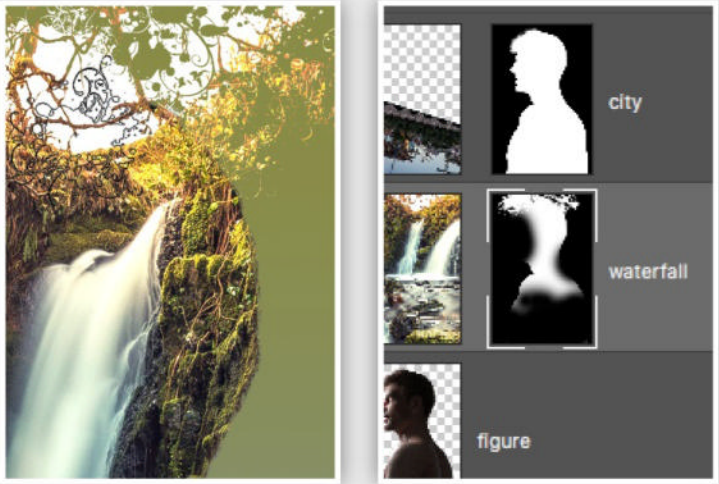

Wed 11 Apr 08:55:0
950
1000
1050
1100
Layers 3D Channels Paths
Kind
Lighten
Opacity: 100%
Lock:
Fill: 100%
city
waterfall
Layer mask thumbnail
figure
white
Background

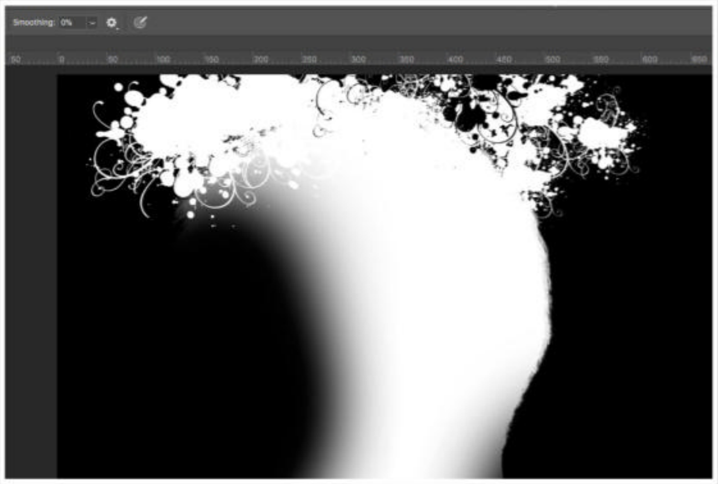
26 Make the 'waterfall' layer mask active and use a large soft black brush to mask areas of the waterfall photo so more of the 'city' layer can be seen as it blends into the image. Remember the rule of thumb with layer masks: white reveals and black conceals.


2278
grunge4
2366
grunge splatter2
1894
grunge splatter2
grunge splatter5
1725



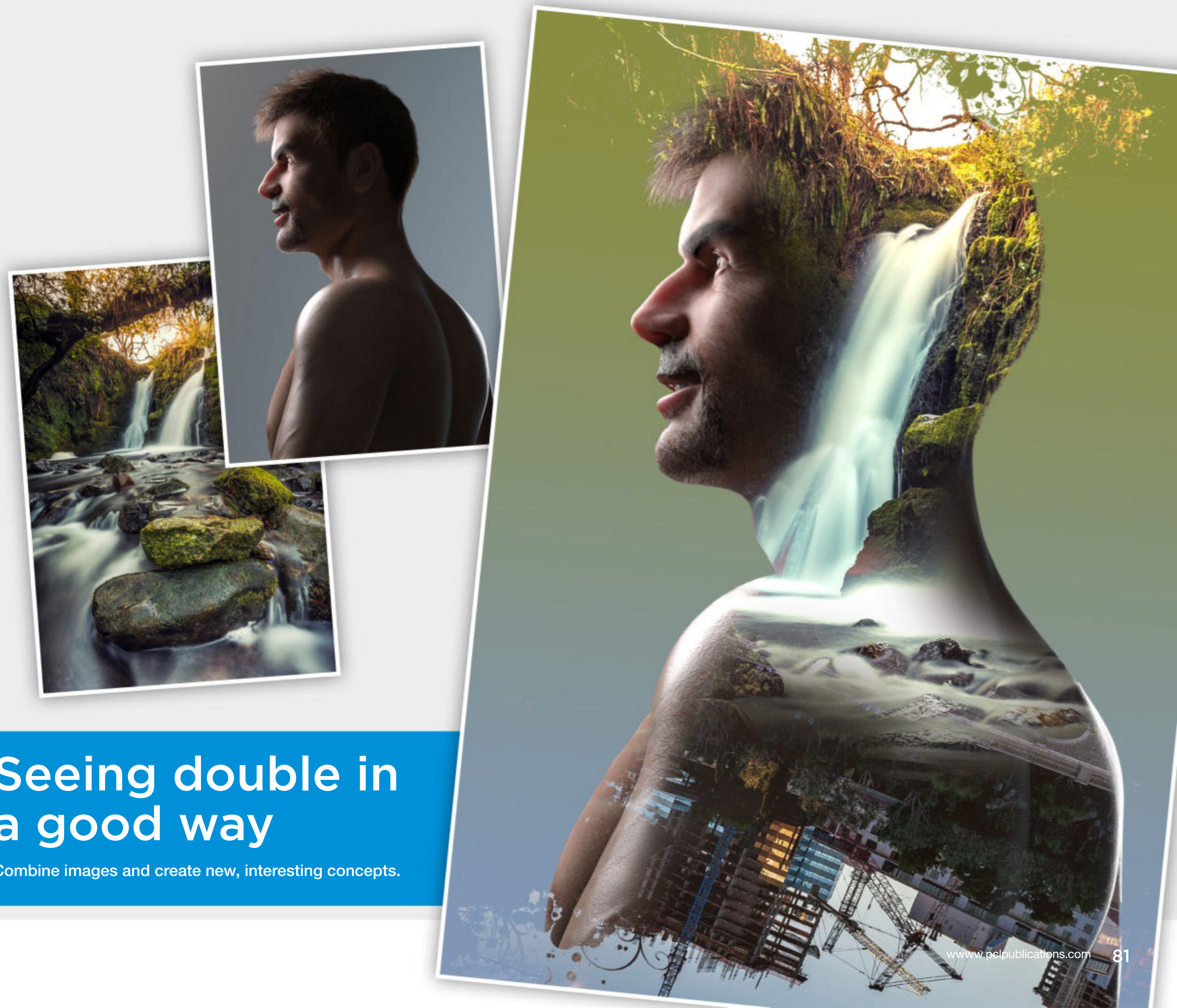
28 Then you can click on the 'waterfall' layer mask to activate it and use your favourite Photoshop brushes to add additional graphic elements. We used a free splatter brush from www.deviantart.com.





29 Make sure the brush is set to white and you can use the [and] keys to make the brush smaller or larger as required. Painting with the splatter brush reveals more of the waterfall image. You can then add white brush marks to the 'city' layer mask as well.

30 If you view the masks on their own by pressing Alt + left-click on each mask, you can see how the brushes are working. Once you are happy, you have created your multi-exposure image which has a conceptual feel to it.



Seeing double in a good way

Combine images and create new, interesting concepts.

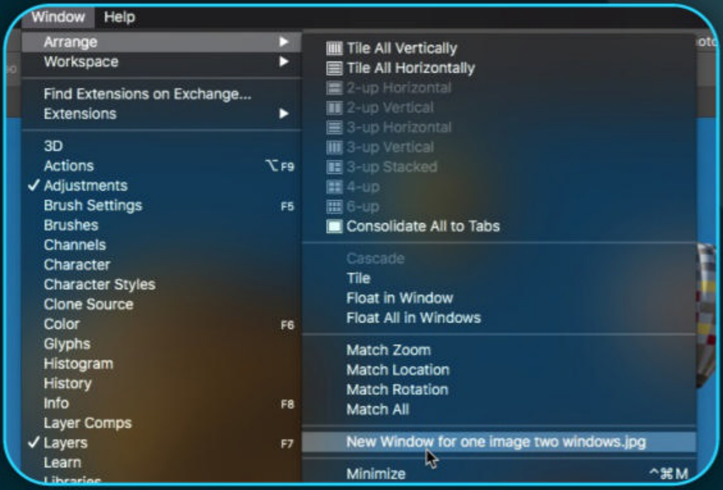
AFTER
BEFORE

MEGA TIP

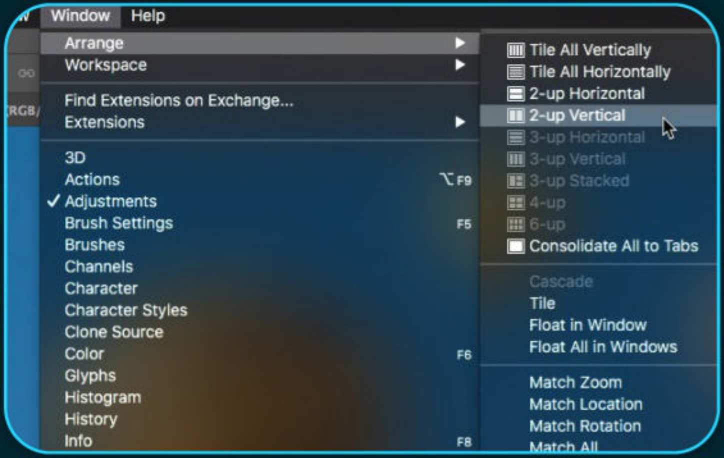
One Image, Two Windows

Here's another very handy hint for you in the shape of a two-screen window. Sometimes, it is useful to be able to view a part of your photo in extreme close-up, while still being able to see the effect you're having.

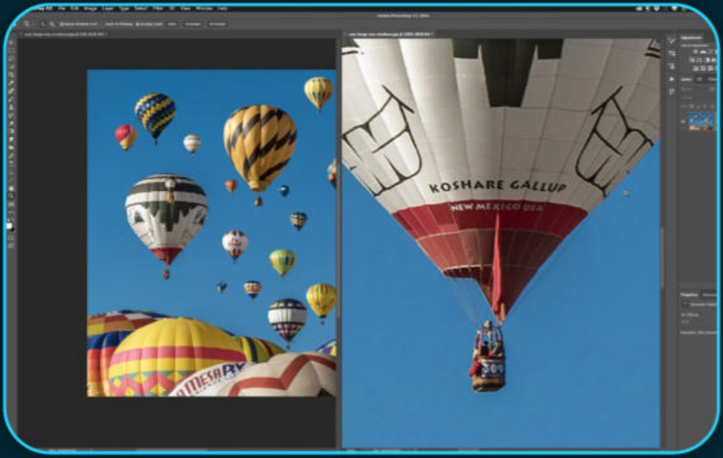
01 This tip uses a colourful image of hot air balloons taking off en-masse into a beautiful blue sky. We want to be able to edit one of the smaller balloons in close-up detail while still being able to see the entire image and what effect we're having on it, as we work.


Window
Help
Arrange
Workspace
Find Extensions on Exchange...
Extensions
3D
Actions ⌥F9
✓ Adjustments
Brush Settings F5
Brushes
Channels
Character
Character Styles
Clone Source
Color F6
Glyphs
Histogram
History
Info F8
Layer Comps
✓ Layers F7
Learn
Tile All Vertically
Tile All Horizontally
2-up Horizontal
2-up Vertical
3-up Horizontal
3-up Vertical
3-up Stacked
4-up
6-up
Consolidate All to Tabs
Cascade
Tile
Float in Window
Float All in Windows
Match Zoom
Match Location
Match Rotation
Match All
New Window for one image two windows.jpg
Minimize ^⌘M

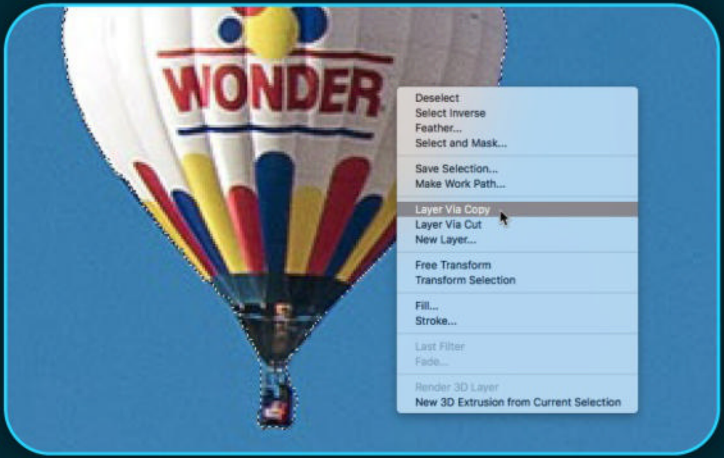
02 With your main image open, go to Window > Arrange > New Window For One Image. A second document tab will appear with the same name as your current document. It is a duplicate of your photo. Now, you need to be able to see both windows side-by-side to get the most out of this handy technique.


Window
Help
Arrange
Workspace
Find Extensions on Exchange...
Extensions
3D
Actions ⌥F9
✓ Adjustments
Brush Settings F5
Brushes
Channels
Character
Character Styles
Clone Source
Color F6
Glyphs
Histogram
History
Info F8
Tile All Vertically
Tile All Horizontally
2-up Horizontal
2-up Vertical
3-up Horizontal
3-up Vertical
3-up Stacked
4-up
6-up
Consolidate All to Tabs
Cascade
Tile
Float in Window
Float All in Windows
Match Zoom
Match Location
Match Rotation
Match All

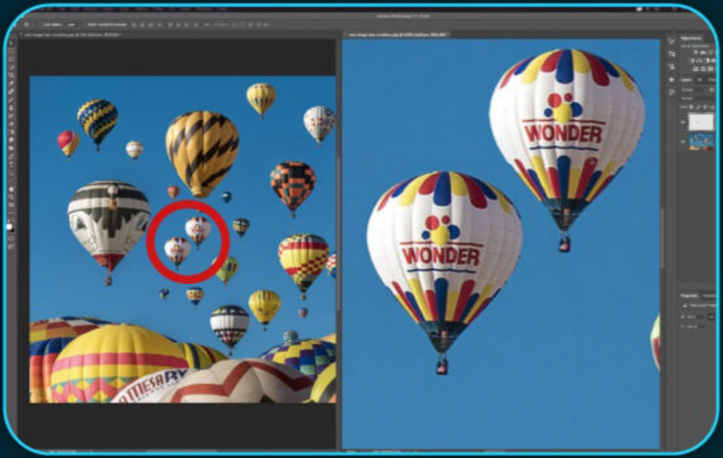
03 Go to Window > Arrange > 2-Up Vertical. You can choose from the other arrangements depending on the shape and orientation of the photo on which you are working. This will arrange both documents vertically, so they are side-by-side in the Photoshop workspace.


KOSHARE GALLUP
NEW MEXICO USA

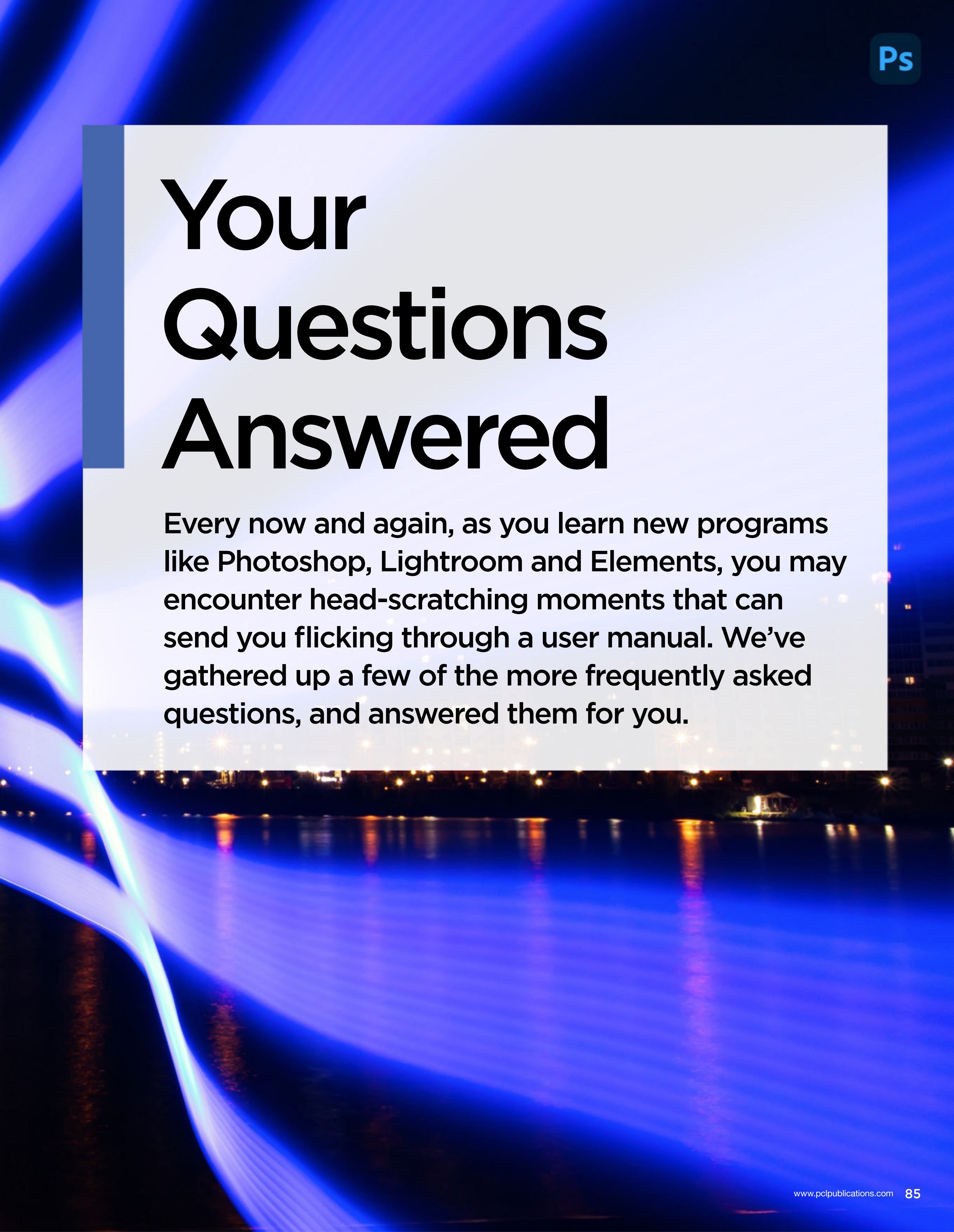
04 The magnification of one window can be different to the other. In this example, the left window is at 50% while the other is at 300%. If you hold the spacebar and drag, you can move each image around individually. Hold Shift + spacebar, drag one image and the other will move at the same time.


WONDER
Deselect
Select Inverse
Feather...
Select and Mask...
Save Selection...
Make Work Path...
Layer Via Copy
Layer Via Cut
New Layer...
Free Transform
Transform Selection
Fill...
Stroke...
Last Filter
Fade...
Render 3D Layer
New 3D Extrusion from Current Selection

05 We stayed with the 300% window, went to the toolbar and used the Quick Selection Tool to select one small balloon in the middle of the throng. We then duplicated it onto a new layer using the Layer Via Copy command. This new layer was named 'balloon'.


WONDER
WONDER

06 Use the Move Tool to drag the copied balloon to another part of the sky. As you do, you will see that not only does the balloon in the 300% window move, but the wider view on the left also performs the same move. You can even switch between windows if you like. You can close one window when you are done.



Your Questions Answered

Every now and again, as you learn new programs like Photoshop, Lightroom and Elements, you may encounter head-scratching moments that can send you flicking through a user manual. We've gathered up a few of the more frequently asked questions, and answered them for you.

Photoshop, Lightroom and Elements Q&A

When Photoshop arrived on the scene all those years ago, no-one could really have predicted just what a monumental impact it would have on the fields of design, photography, art, and of course, image manipulation. Be in no doubt that there is a lot to learn, but also comfort yourself in the knowledge that it is also easier to grasp the basics than you might think. In this section, we shall cover a Q&A session where we will try to answer some of the more common (and perhaps not so common) questions that users both new and old are asking. There are no silly questions, even experienced users don't know every single thing there is to know about Photoshop. We can speak from experience to that point. There's always something new to learn, some little trick or feature that we haven't tried before that can have an impact on how we work. There's also the general knowledge section of owning and using it that can be invaluable too. So, let's get started and canter through a number of Q&As. Some are relatively simple. Some may be commonly asked questions. Some might be quite random. Hopefully, all are useful in some way. Read on.

Q: What is the main difference between Photoshop and Lightroom?

A: New users are sometimes caught out between what one program can offer over the other and what kinds of work can be done with them. This was particularly true a while back when you had some disconcerting naming conventions that gave you: Adobe Photoshop, Adobe Photoshop Lightroom and Adobe Photoshop Elements. New users were not entirely sure what was what. Now we have: Adobe Photoshop 2025, Adobe Lightroom Classic, Adobe Lightroom and Adobe Photoshop Elements. Let's try and break this down for you.

Adobe Photoshop is a pixel-based graphics editor. It uses layers and tools to enable you to manipulate photos, cut things out, paste others in and create entirely new works of art. It has become an industry standard for artists everywhere.

Adobe Photoshop Elements is also a graphics editor for hobbyists but where Photoshop is a complex beast, Elements contains a number of the same features but presented in a much simpler way with a lot more automation provided for new users.

Adobe Lightroom Classic and its mobile-focused sibling Adobe Lightroom are used as a means to import, organise and find your digital photos. They offer image adjustments that use non-destructive methods to preserve your original file. Typically, photographers use Lightroom to catalog their images and edit them. Things such as brightness, contrast and saturation are applied to get the very best out of an image.

Q: Where can I get free pictures to practice Photoshop with?

A: Luckily, there are a number of great Internet sites that make free images available to you. 'Free' can be a relative term, so make sure you check each site you visit for their licensing restrictions. For example, some can be free to download for personal use only, while others can be downloaded, used commercially or redistributed without any restrictions.

Flickr: The Commons

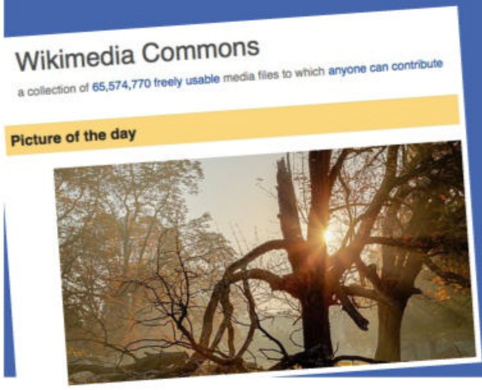
First port of call is Flickr: The Commons. Here you can browse through the world's public archives. Many museums, institutions and libraries make images available with no copyright, as do many Flickr users.

The Commons

Help us catalog the world's public photo a

Wikimedia Commons

A searchable library of images formed under the Wikipedia umbrella project. As well as their collection of photos, you can access videos, audio files and various media without restriction.



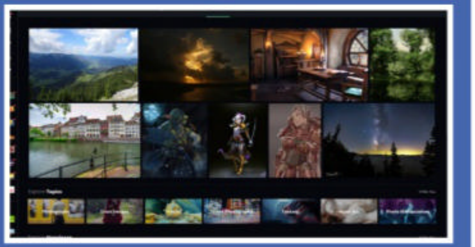
Wikimedia Commons

a collection of 65,574,770 freely usable media files to which anyone can contribute

Picture of the day

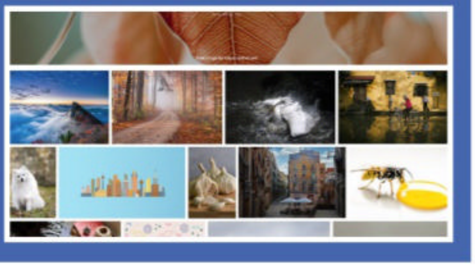
DeviantArt

Another huge repository of photographs, art and other media. Whilst a lot is free to use, artists will have individual restrictions on how their work is used. Check before you download anything.



Pixabay

Packed with nearly 2 million stock photos and illustrations, this site allows all images to be used freely for any purpose with no attribution required, although a thank you posted on the artist's profile page wouldn't go amiss.

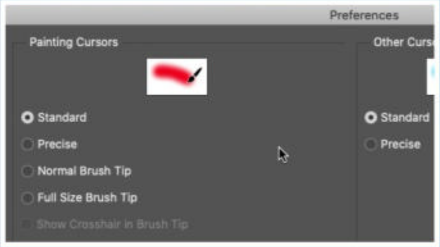


Q: Do I really have to pay a monthly subscription to use Adobe programs?

A: The short answer is yes, if you want the most up to date versions of these programs. Only Elements can be bought outright. You can still purchase copies of Photoshop CS6, but Adobe no longer support it with new updates. Old pre-subscription copies of Lightroom are not available for purchase any more.

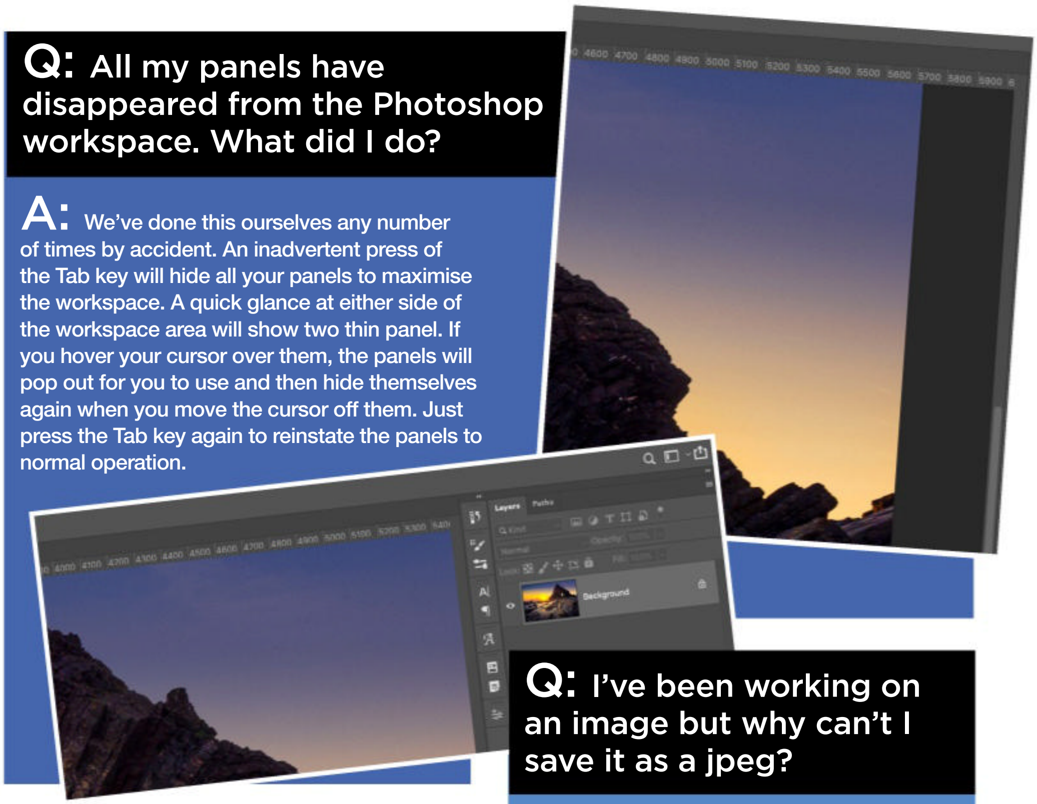
Q: In Photoshop, my cursor sometimes changes shape. Why does this happen?

A: If you've been working with the type tool or any tool other than your brush, this can sometimes happen. If you've returned to the brush tool only to find that it has changed shape, then you may have possibly switched to the precise cursor option. All you have to do is press the Caps Lock button on your keyboard to return to your standard cursor. Pressing Cmd + K will take you to the preferences panel where you can also specify more cursor parameters.


Preferences
Painting Cursors
● Standard
○ Precise
○ Normal Brush Tip
○ Full Size Brush Tip
☐ Show Crosshair in Brush Tip
Other Curs
● Standard
○ Precise

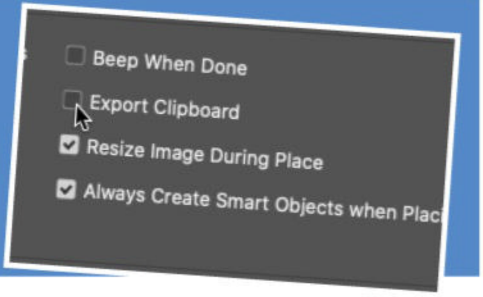
Q: All my panels have disappeared from the Photoshop workspace. What did I do?

A: We've done this ourselves any number of times by accident. An inadvertent press of the Tab key will hide all your panels to maximise the workspace. A quick glance at either side of the workspace area will show two thin panel. If you hover your cursor over them, the panels will pop out for you to use and then hide themselves again when you move the cursor off them. Just press the Tab key again to reinstate the panels to normal operation.


Layers
Paths
Background

Q: I keep getting a Clipboard Export error when switching to another program. Can it be stopped?

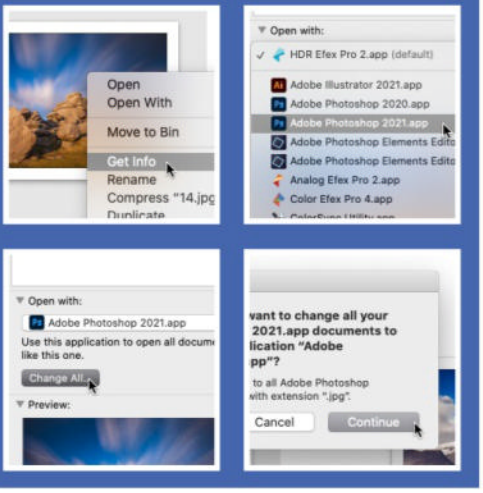
A: If you are experiencing the clipboard error, press Cmd + K to open up your preferences panel and click on the General option. Here you will find the Export Clipboard option. Make sure it is unchecked. This means any Photoshop clipboard data you have is unable to be pasted outside Photoshop. You are still able to paste clipboard data into Photoshop from outside.



☐ Beep When Done
☐ Export Clipboard
☑ Resize Image During Place
☑ Always Create Smart Objects when Plac

Q: Jpeg files used to open in Photoshop when I double-clicked them, now they open in another program. How do I change that?

A: The most likely answer is that you may have installed a new program that has taken over the file association for your images. Using your file browser on a PC or Finder on a Mac, navigate to an image file that is opening in the wrong program. On a PC, right-click on it and the select Open With > Choose Default Program. From there you can select which app to associate with that file type. On a Mac, find a file with the wrong association and highlight it. Click the Get Info button (Cmd + I) in the info panel that appears click the Open With menu. All available applications will be displayed. Click on the Photoshop app and below that click the Change All button. This ensures all images of that file type will now be associated with Photoshop by default.


Open
Open With
Move to Bin
Get Info
Rename
Compress "14.jpg
Duplicate
Open with:
✓ HDR Efex Pro 2.app (default)
Adobe Illustrator 2021.app
Adobe Photoshop 2020.app
Adobe Photoshop 2021.app
Adobe Photoshop Elements Edito
Adobe Photoshop Elements Edito
Analog Efex Pro 2.app
Color Efex Pro 4.app
Open with:
Adobe Photoshop 2021.app
Change All...
Preview:
Cancel
Continue

Use this application to open all docum like this one.

vant to change all your 2021.app documents to lication "Adobe pp"?

to all Adobe Photoshop with extension ".jpg".

Q: I've been working on an image but why can't I save it as a jpeg?

A: There are a couple of things you need to check. Firstly, if you have added layers either intentionally or by accident, it will want you to save it as a layered .PSD file unless you tell it otherwise. You also need to check what colour mode you're in . If for some reason the mode has been changed to 32 Bits/Channel, jpeg is not a format option to save in. Go to Image > Mode and check out the dropdown menu. Typically, a normal jpeg image is in 8 Bits/Channel mode. One other thing to check is the overall file size of the image. Very large images, those that might be in 32 Bits/Channel mode, or documents comprised of many layers and effects will only allow them to be saved in other formats such as Photoshop Raw and large format .PSB files.

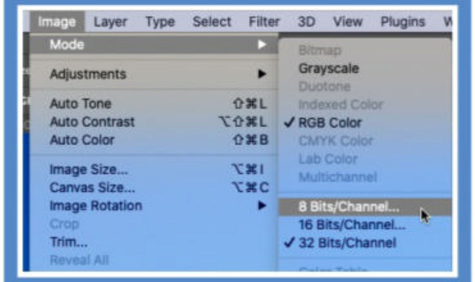
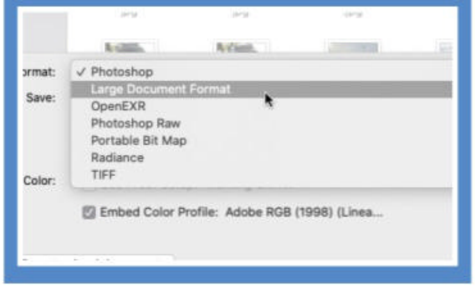
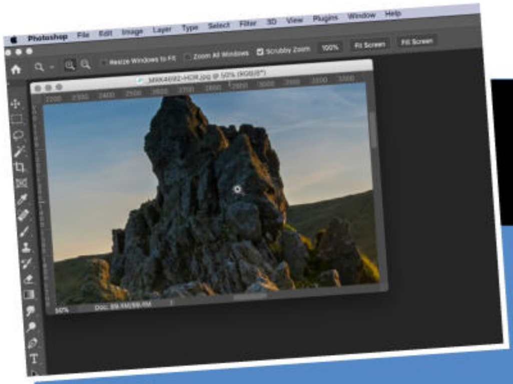


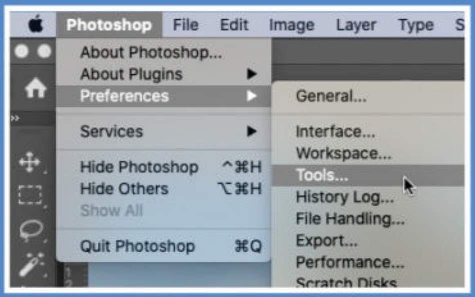
Image
Layer
Type
Select
Filter
3D
View
Plugins
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Bitmap
Grayscale
Duotone
Indexed Color
✓ RGB Color
CMYK Color
Lab Color
Multichannel
8 Bits/Channel...
16 Bits/Channel...
✓ 32 Bits/Channel

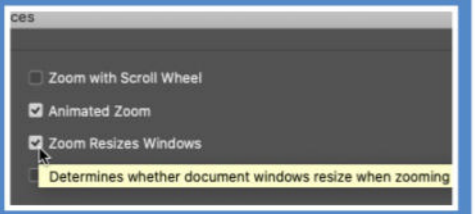

ormat:
Save:
Color:
✓ Photoshop
Large Document Format
OpenEXR
Photoshop Raw
Portable Bit Map
Radiance
TIFF

☑ Embed Color Profile: Adobe RGB (1998) (Linea...



Q: When I zoom an image in Photoshop, the window remains the same size and I have to scale it manually to see the picture in full. Is there a way around that problem?


Photoshop
File
Edit
Image
Layer
Type
About Photoshop...
About Plugins
Preferences
Services
Hide Photoshop ^⌘H
Hide Others ⌥⌘H
Show All
Quit Photoshop ⌘Q
General...
Interface...
Workspace...
Tools...
History Log...
File Handling...
Export...
Performance...
Scratch Disks



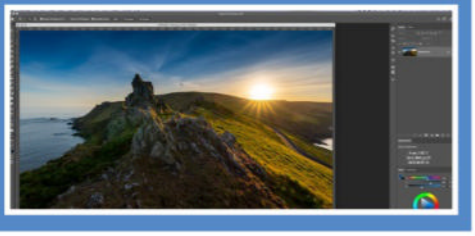
☐ Zoom with Scroll Wheel

☑ Animated Zoom

☑ Zoom Resizes Windows

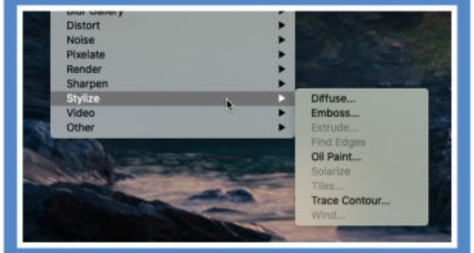
Determines whether document windows resize when zooming

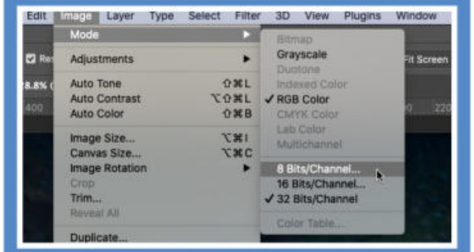
A: That's an easy one to remedy. It sounds like the Zoom Resizes Windows button may not be active. Press Cmd + K to bring your preferences up and go to the Tools section. Here you'll see the Zoom Resizes Windows option. Make sure it is checked and now your window will scale as you zoom your image until you reach the limit of the available workspace. Alternatively, you can dock the document window to the workspace. Drag the document to the edge of the workspace until you see a blue line appear. Let go of the mouse and the document window is now docked to the workspace and remains the same size even if you reduce the image to a very small size.

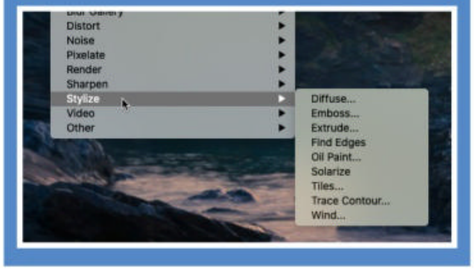


Q: Why are certain filters and options greyed out on certain images? Others seem to work fine.

A: You'll need to double check your image and what bit depth it has been saved as. Typically if your image shows a bit depth of 16 Bits/Channel or 32 Bits/Channel, then certain filters and functions will not work. You'll need to go to Image > Mode and set the bit depth to 8 Bits/Channel. Then they should work fine.

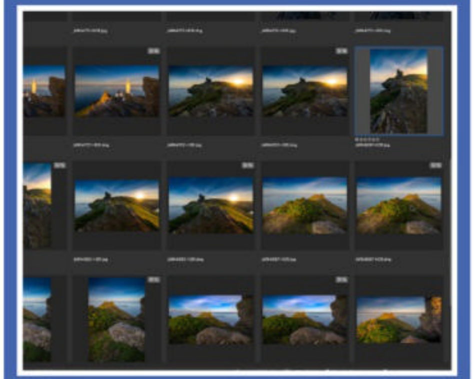

Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Diffuse...
Emboss...
Extrude...
Find Edges
Oil Paint...
Solarize
Tiles...
Trace Contour...
Wind...

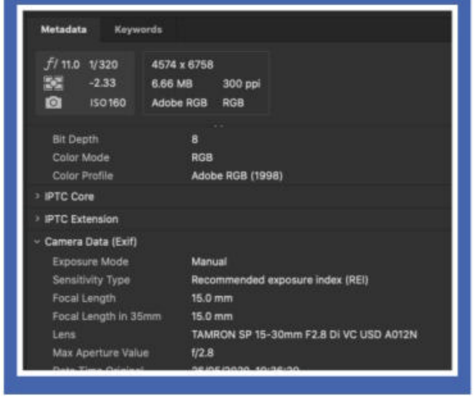

Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Bitmap
Grayscale
Duotone
Indexed Color
✓ RGB Color
CMYK Color
Lab Color
Multichannel
8 Bits/Channel...
16 Bits/Channel...
✓ 32 Bits/Channel
Color Table...
Fit Screen


Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Diffuse...
Emboss...
Extrude...
Find Edges
Oil Paint...
Solarize
Tiles...
Trace Contour...
Wind...

Q: I'm new to Photoshop. After installing it I also have an application called Adobe Bridge. What is it for?

A: Very simply put, Adobe Bridge is a neat asset management program that lets you preview, catalog, keyword and search through your image and asset library. You can also add metadata, rename files in bulk and launch Photoshop.




Metadata
Keywords

f/ 11.0	1/320
-2.33	
ISO 160	
4574 x 6758	
6.66 MB	300 ppi
Adobe RGB	RGB
Bit Depth	8
Color Mode	RGB
Color Profile	Adobe RGB (1998)

› IPTC Core

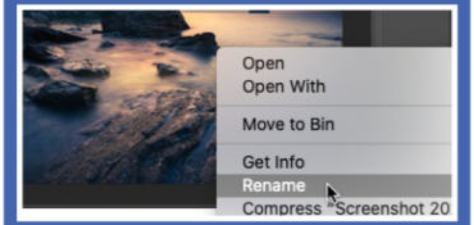
› IPTC Extension

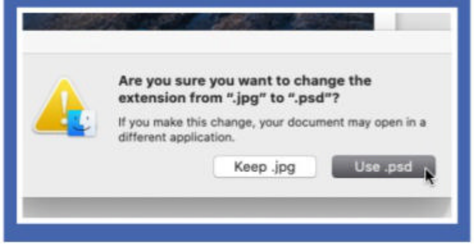
⌄ Camera Data (Exif)

Exposure Mode	Manual
Sensitivity Type	Recommended exposure index (REI)
Focal Length	15.0 mm
Focal Length in 35mm	15.0 mm
Lens	TAMRON SP 15-30mm F2.8 Di VC USD A012N
Max Aperture Value	f/2.8

Q: I've saved a jpeg from Photoshop. When I try to open it, it says 'Could not open "xxx.jpg" because an unknown or invalid JPEG marker is found. What has happened to the file?

A: This is another irritation that can befall you sometimes. This usually comes about because even though you saved it with a .jpg filename, you have in fact saved it in a .PSD format. In the most recent version of Photoshop, it will warn you that you are trying to name a file incorrectly. If you have older versions of Photoshop like CS6, this can be a common occurrence. Navigate to the problematic file and rename the file and change the .jpg extension to .psd. You'll be asked to confirm this, so click OK. The file will be renamed and you should now be able to open the file again in Photoshop.


Open
Open With
Move to Bin
Get Info
Rename
Compress "Screenshot 20



Are you sure you want to change the extension from ".jpg" to ".psd"?

If you make this change, your document may open in a different application.

Keep .jpg
Use .psd

Q: Which version of Lightroom is better; Lightroom Classic or CC?

A: This might be more about how serious you are about image processing. Over the last couple of years, Adobe have renamed and revamped Lightroom to the point it now exists as two versions. Lightroom Classic is an advanced desktop-focused version with a complete set of modules that allow the serious photographer to get the most out of their images. Lightroom CC is a pared down mobile version that offers more basic controls to edit your photos. It is arguably considered an entry level application for photo processing and adjustment.

Adobe Lightroom Classic

Artwork by Marina Weishaupt.

© 2007-2025 Adobe. All rights reserved. For more details and legal notices, go to the About Lightroom Classic screen.

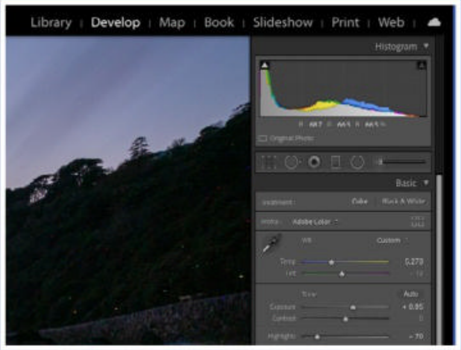
Reading preferences...

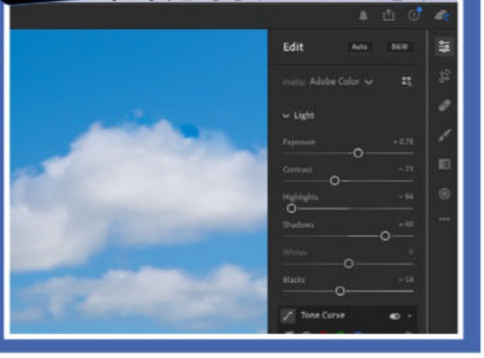
Adobe Lightroom

Artwork by Chiron Duong.

© 1990-2025 Adobe. All rights reserved. For more details and legal notices, go to the About Lightroom Screen.

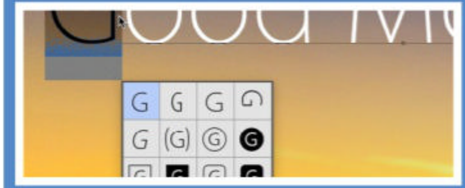
Reading preferences...

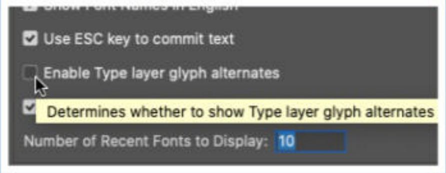




Q: When editing text in Photoshop, a small panel of alternate text characters keeps appearing. This is a bit annoying, can I easily turn this off?

A: Yes you can. This small flyout panel is a quick method of showing you alternative characters and symbols. If you don't want this panel to appear whilst editing text, go to Photoshop > Preferences > Type and find the check box named Enable Type Layer Glyph Alternatives and make sure it is unchecked. The text flyout box will be disabled after that.




☑ Use ESC key to commit text

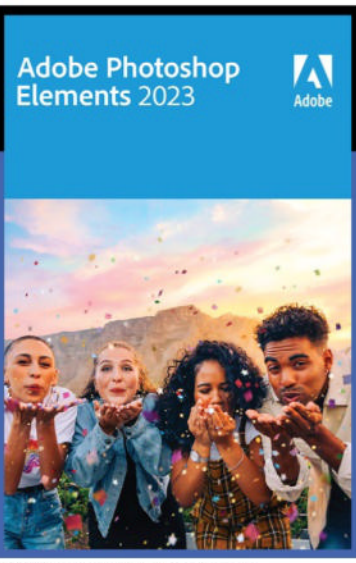
☐ Enable Type layer glyph alternates

☑ Determines whether to show Type layer glyph alternates

Number of Recent Fonts to Display: 10

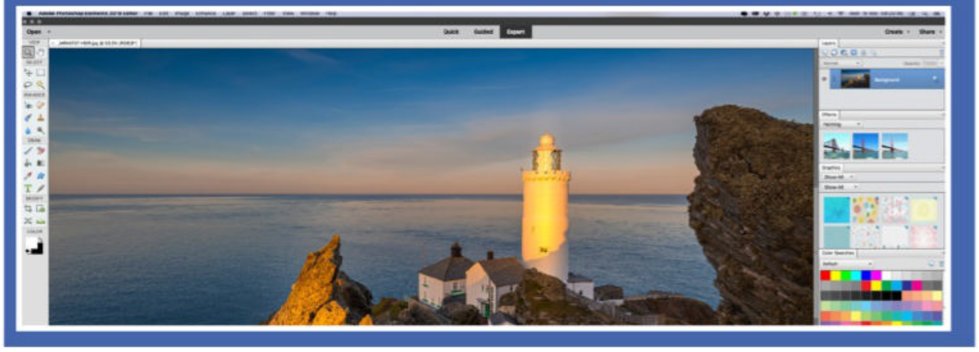
Q: Am I only able to open raw files in Lightroom for image processing?

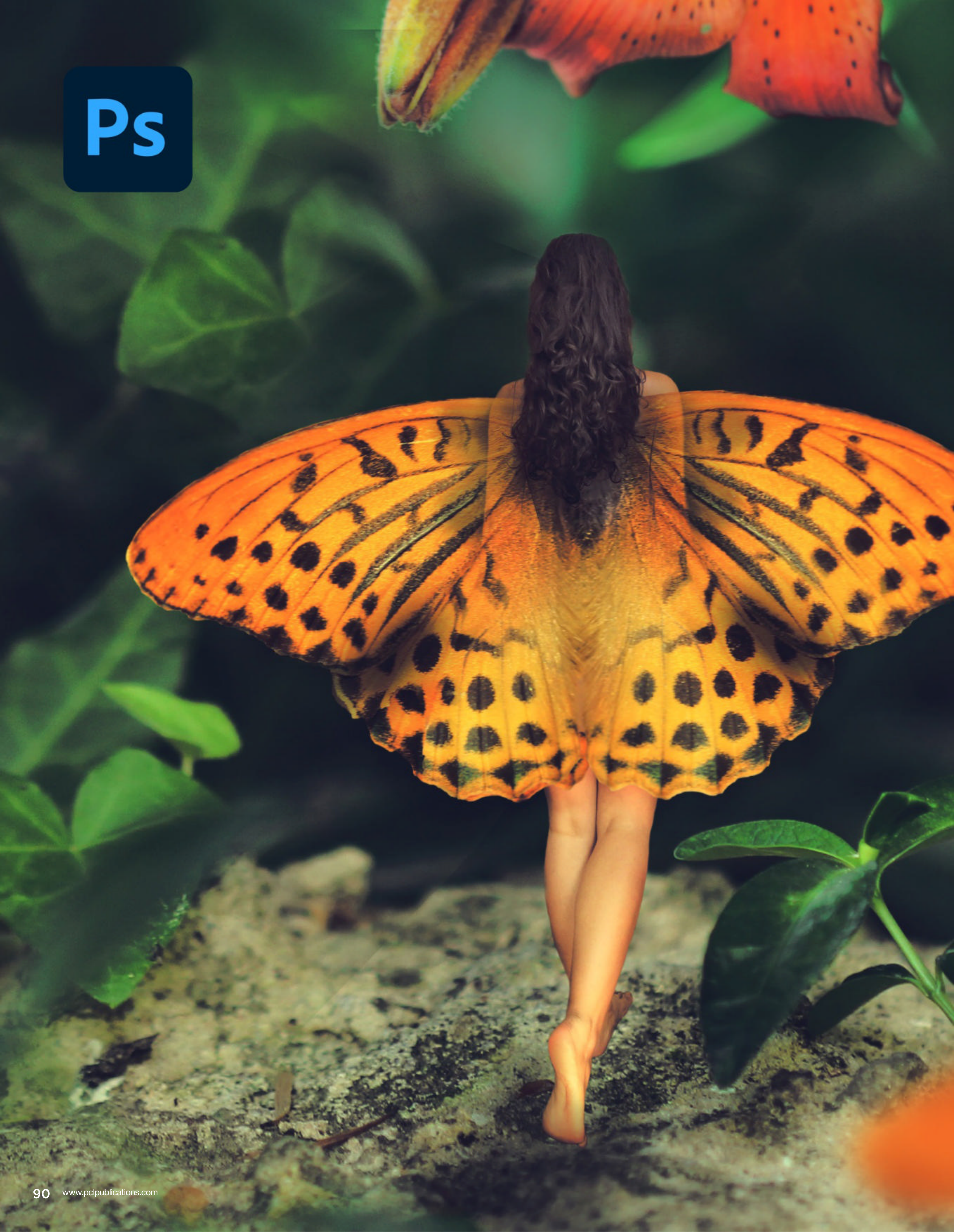
A: Not at all. While it's true that Lightroom primarily supports a large number of native camera raw formats such as Canon's CR2 format, Nikon's NEF format and the Olympus ORF format, you can also open PNG, TIFF, JPEG and DNG formats too. Lightroom also supports Photoshop's own PSD document format too.



Q: Do I need Photoshop if I already have a copy of Photoshop Elements?

A: That really depends on whether the tools provided by Elements continue to fulfil your image editing requirements. Elements can be purchased outright and does not require a monthly subscription, which makes it an attractive proposition. It is less expensive than Photoshop, but this means that it has a number of limitations and has less features and advanced options. If you use Elements and find yourself always in need of greater creative functionality, then Photoshop is your next upgrade path. Otherwise, sticking with Elements continues to make sense.



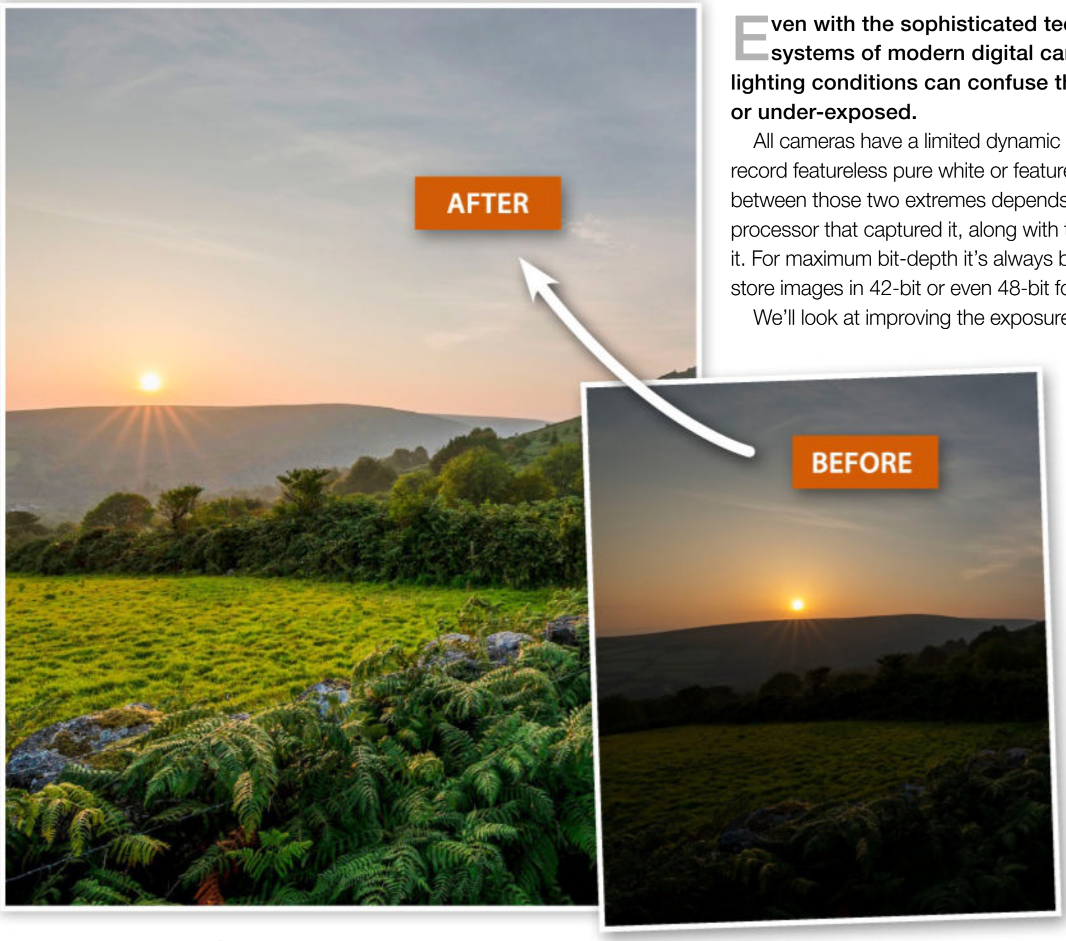


Learn and Improve Your Skills

Like many new skills, Photoshop may be easy to follow, but more challenging to master. All it takes is time, patience and the willingness to learn. After taking a look at some of the essential aspects of Photoshop, let's get you trying a few more techniques and tools to add to your skill set. Every new skill takes you closer to being a confident and experienced user.

Adjusting Exposure

Correcting your exposure mistakes is easy with Photoshop


AFTER
BEFORE

Even with the sophisticated technology found in the light metering systems of modern digital cameras, they are not infallible. Some lighting conditions can confuse them, resulting in pictures that are over or under-exposed.

All cameras have a limited dynamic range, levels of illumination at which they record featureless pure white or featureless pure black. The tonal variation available between those two extremes depends on the quality of the lens, sensor and image processor that captured it, along with the bit-depth of the file type used to record it. For maximum bit-depth it's always best to use Raw mode, since this will usually store images in 42-bit or even 48-bit form, capturing greater dynamic range.

We'll look at improving the exposure of the more common JPEG images from a compact camera. JPEG images are usually only 24-bit, so have less latitude for any exposure recovery.

Over-exposure tends to be more of a problem than under-exposure, since burned-out highlights contain no detail, but the JPEG format is surprisingly good at capturing detail in areas that might initially look like featureless black. As a result it's often possible to rescue shots that are quite badly under-exposed, although this will also amplify any noise in the image, so there is a trade-off for image quality.

This shot was taken using centre-weighted metering against backlighting and as a result the bright part of the horizon is exposed reasonably well but the foreground is under-exposed. It would have been a better idea to use spot metering, but we can still rescue the photo using an image editing program.

Brightness/Contrast

The quickest and easiest way to brighten the photo is to simply turn up the brightness. You'll find Brightness/Contrast as an adjustment layer in the palette on the right, or in the Image > Adjustment menu. The Brightness/Contrast function in recent versions of Photoshop has been changed to improve contrast and tonal balance when adjusting the brightness of your images.

By moving the Brightness slider to the right, the overall brightness of the entire photo is then increased, but the new algorithm retains a reasonable balance in shadow tones. You can tweak the effect with the Contrast slider, the result is reasonably acceptable.

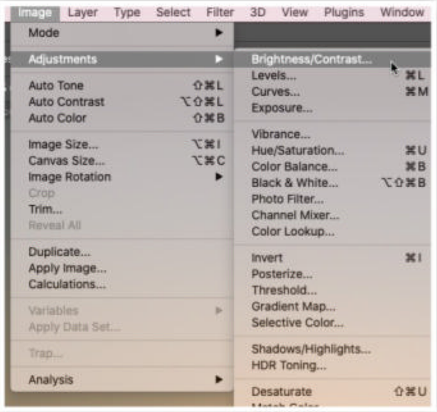
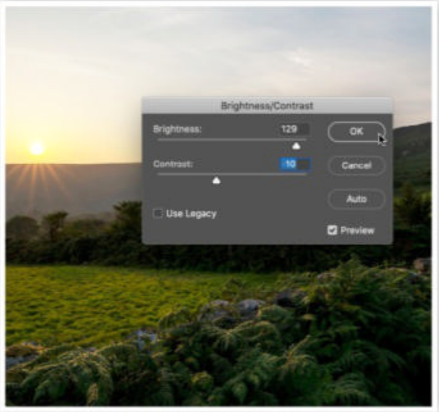


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U


Brightness: 129
Contrast: 10
☐ Use Legacy
☑ Preview
Brightness/Contrast
OK
Cancel
Auto

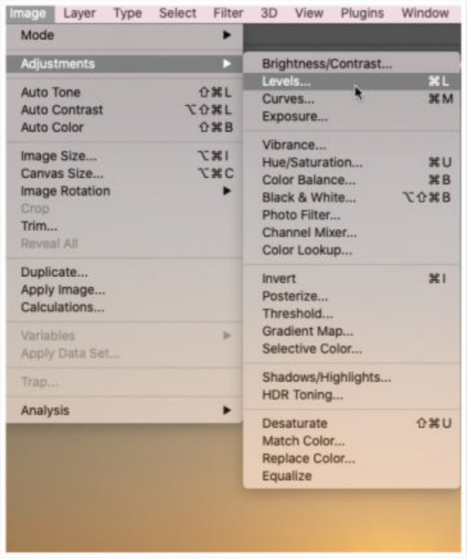
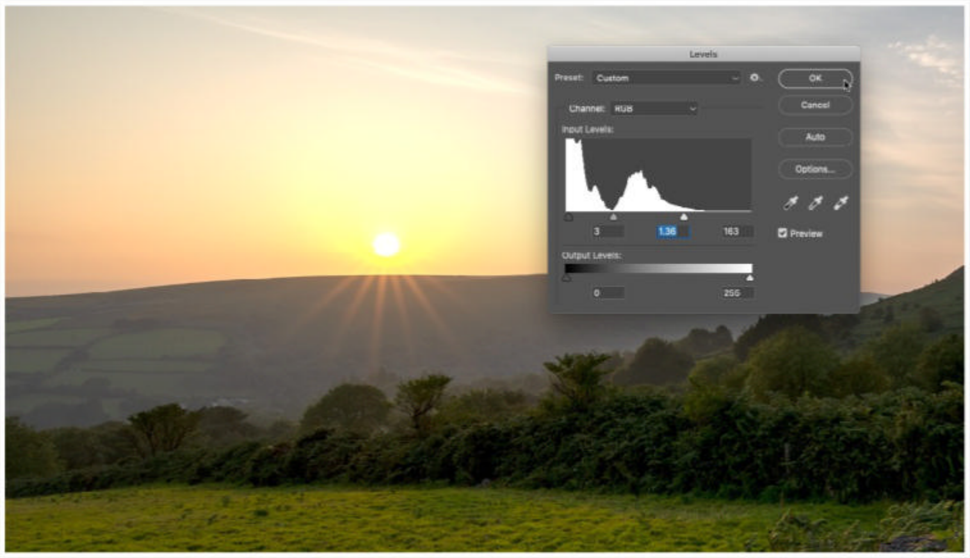


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U
Match Color...
Replace Color...
Equalize


Levels
Preset: Custom
Channel: RGB
Input Levels:
3
1.36
163
Output Levels:
0
255
OK
Cancel
Auto
Options...
Preview

Levels

Photoshop offers another way of altering brightness and contrast, but this time with more subtlety and control, by adjusting the Levels histogram. You'll find Levels in the same Image > Adjustment submenu as Brightness/Contrast. The Levels histogram is basically a graph showing the proportion of pixels in the image at each colour intensity. The far left-hand end of the graph represents black and the right-hand end is white, with every tone in between represented by a spike on the graph. On the bottom axis of the graph are three points, the left representing the black cut-off point, the right the white cut-off point and the one in the middle representing the mid-tone point.

As you can see from the graph our image is mostly shadows and mid-tones with little highlights, so we need to brighten some of those shadows into mid-tones. The way we do this is by moving the mid-tone and highlights points left towards the shadows. This has the effect of bringing out a lot of the detail from the shadow areas without burning out any more highlights. It also leaves the deeper shadow areas intact. It is a far better way of adjusting the exposure of a photograph than simply altering the Brightness/Contrast, however it isn't quite the best way. Adjusting the Levels mid-point is still strictly linear in its adjustment.

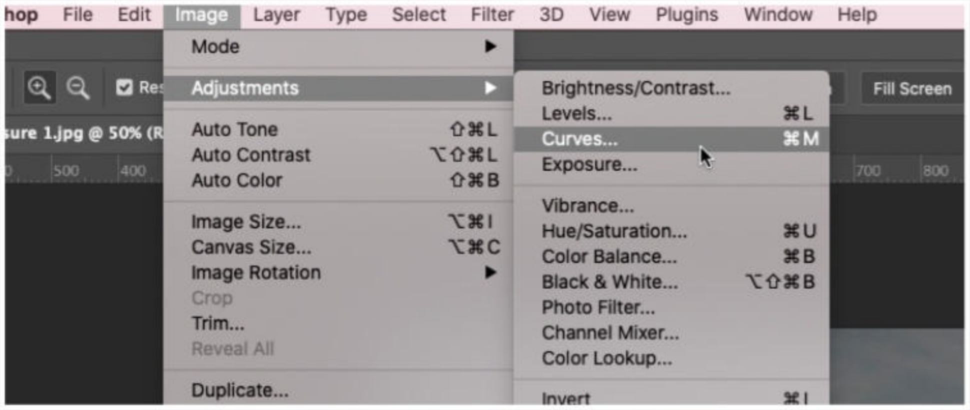
Curves

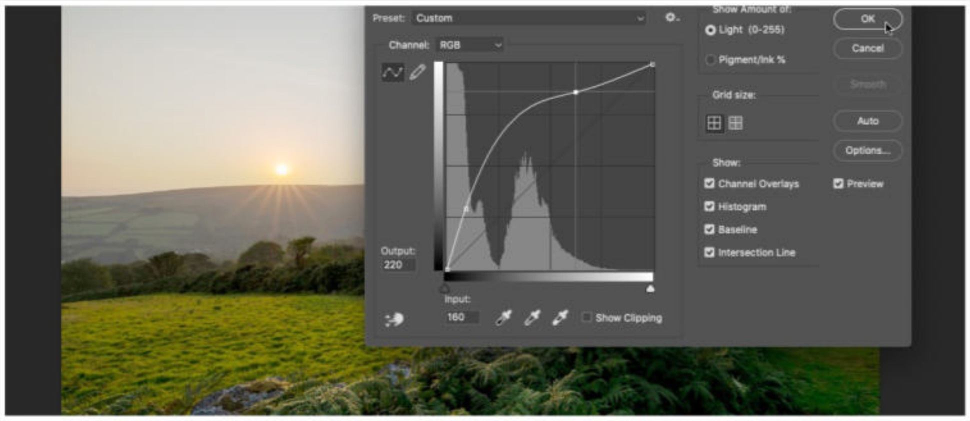
The Curves adjustment option, again found in the Image > Adjustment menu and as an adjustment layer option, is a method of changing the relative brightness of specific tones and ranges of tones within an image, giving precise control over exposure. Learning to use it properly is a core skill in image editing and will enable you to make precise and subtle changes to the brightness and relative contrast of not just of the image as a whole, but also of individual colour channels.

Drag the Curves output line around by clicking at any point, then moving the handle that appears. To improve this picture we need to brighten the shadows and mid-tones, while simultaneously darkening the highlights, so we should drag the lower side of the curve upwards and the upper part of the curve downwards, creating an inverted S-shaped curve. As with many Photoshop techniques, the key here is subtlety. Push the curve too far and you'll ruin the picture, so keep an eye on it as you progress.

USEFUL TIP

As with most Photoshop editing techniques, subtlety is the key. If you push the curves too far you'll lose detail.

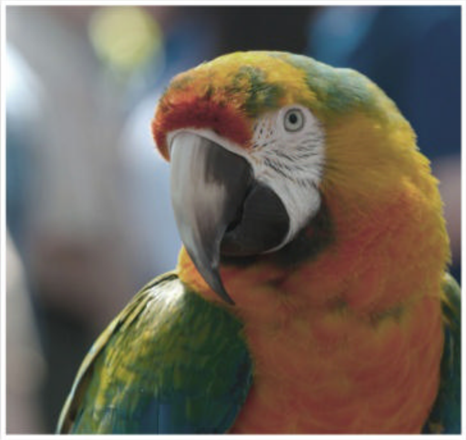

hop
File
Edit
Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Fill Screen
sure 1.jpg @ 50% (R
500
400
700
800


Preset: Custom
Channel: RGB
Show Amount of:
Light (0-255)
Pigment/Ink %
Grid size:
Show:
☑ Channel Overlays
☑ Histogram
☑ Baseline
☑ Intersection Line
OK
Cancel
Smooth
Auto
Options...
☑ Preview
Output:
220
Input:
160
Show Clipping

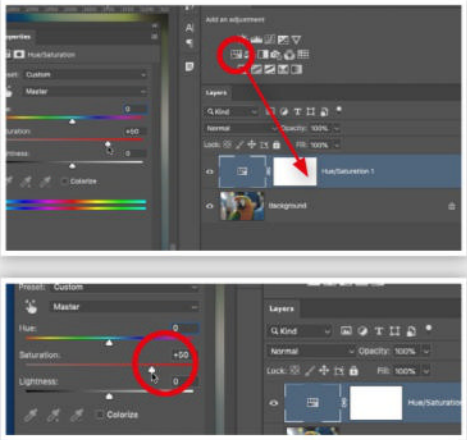
Contrast and Saturation

Using curves and blend modes to improve colour saturation and contrast in your digital photos

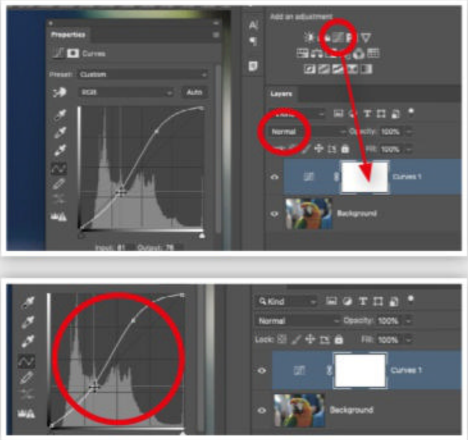
When you take a digital photo of a scene, you are relying on your camera to be able to capture all the colours and tones that you see. Unfortunately most digital cameras simply aren't capable of recording the full range of colours and shades that the human eye can see, so your photo of what was a bright and colourful scene may prove to be a bit of a disappointment when you see it on your monitor. Fortunately there are many different ways to improve both contrast and colour saturation, which might help to restore some of the sparkle to your photos. Let's take a look at some of the alternatives.



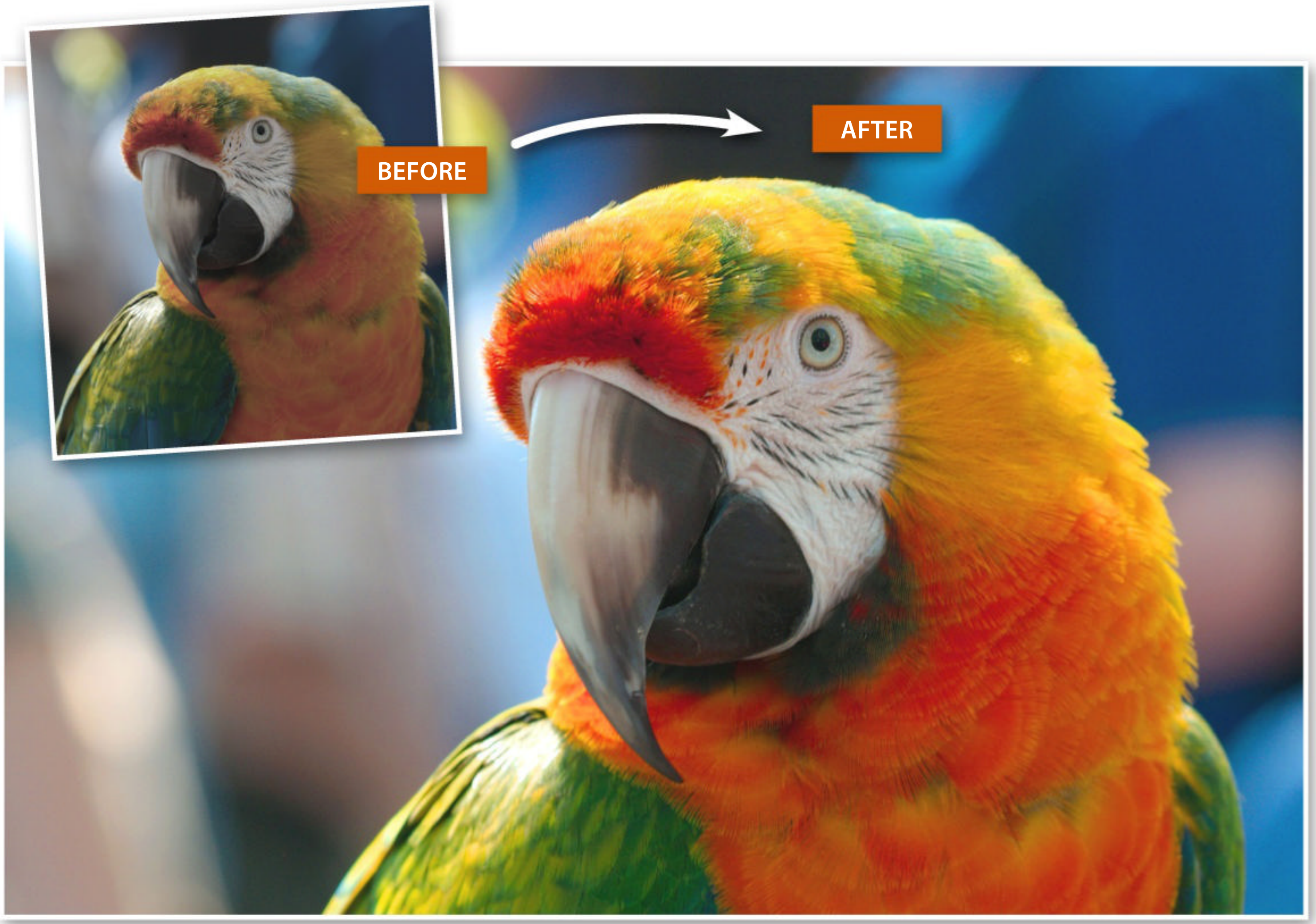
01 As an example we'll use this snapshot of a parrot. In reality the colour of the scene is much more intense than it looks here, but the digital camera that was used to take the photo was set to a neutral and flat colour mode to capture as much dynamic range as possible. This mode generally leaves images looking a bit pale and lacking contrast and vibrant colour. This shouldn't be a problem as the shot is well exposed and contains plenty of detail that will suit the increase in saturation.

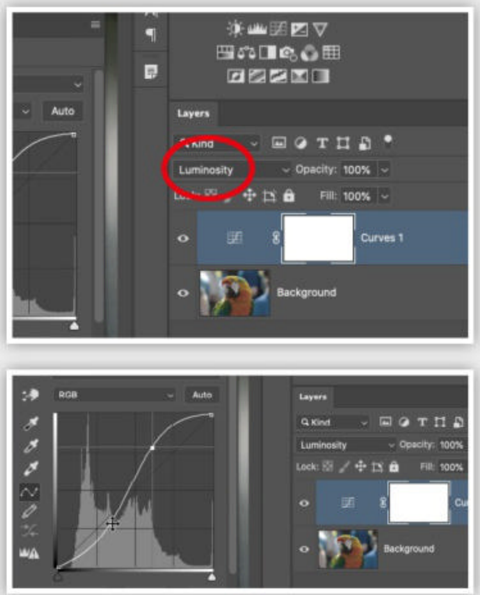


02 The simplest way to improve the saturation is by adding a Hue/Saturation adjustment layer. Like many other parts of the program, Hue/Saturation has been improved in Photoshop, producing a smoother result than previous versions. If you were to boost the saturation by about +50, you'd restore some of the missing colour, but it's a scattergun approach and doesn't offer much fine control. It can also increase noise in shadow areas in JPEG images. Let's look at more options.

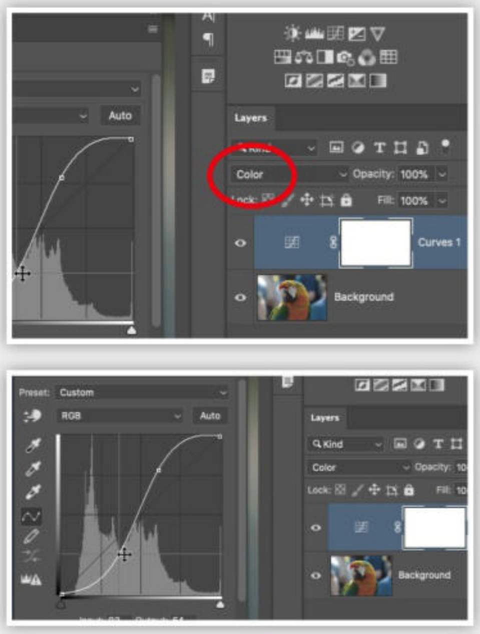


03 A much more controllable way to adjust both saturation and contrast is to use a Curves adjustment layer. We've already looked at Curves in the section on adjusting exposure, but by using Blend Modes we can also use Curves to enhance saturation. In Normal blend mode the curve will change both contrast and saturation. We're using the same S-shaped curve, which boosts brightness at the upper end of the scale and darkens shadows at the lower end.

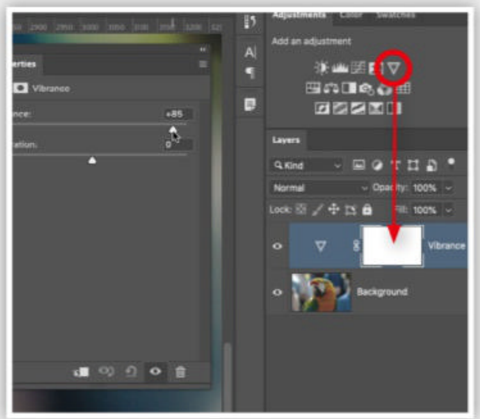

BEFORE
AFTER


Layers
Kind
Luminosity
Opacity: 100%
Fill: 100%
Curves 1
Background
RGB
Auto

04 By changing the blend mode to Luminosity, the curve will only affect brightness, so an S-shaped enhancement curve will improve contrast, lightening highlights and darkening shadows without affecting colour saturation.


Layers
Color
Opacity: 100%
Fill: 100%
Curves 1
Background
Preset: Custom
RGB
Auto

05 Conversely, by using a Color blend mode, an S-shaped curve will alter colour saturation without affecting brightness, so shadows and highlights are unaffected. This is great to keep noise under control.


Adjustments
Add an adjustment
Vibrance
Layers
Normal
Opacity: 100%
Fill: 100%
Vibrance
Background

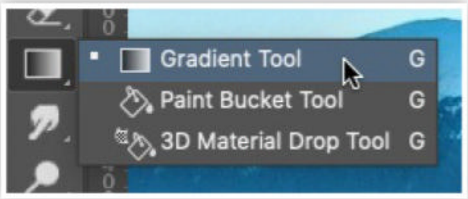
06 Another way to improve saturation is a Photoshop function called Vibrance, which can also be applied as an adjustment layer. Vibrance is a difficult thing to quantify. It is a saturation function, but it works on a graph, affecting the least saturated areas most, and the most saturated areas least. On a picture like this it can help, but it has to be used with contrast enhancement for best effect, which may again cause an increase in noise. This option is less intense than using Saturation. Vibrance is best used when processing a Raw image file.

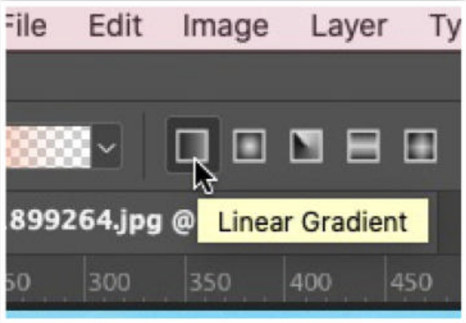
Gradient Fill & Paint Bucket

Fill layers and selections with colours, textures and gradients

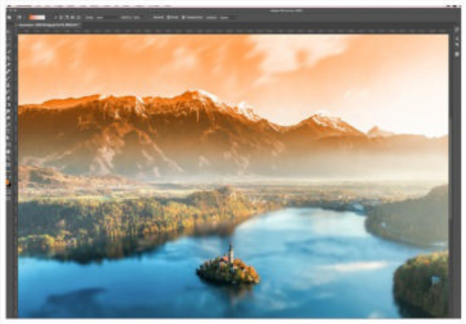
One very useful facility that Photoshop provides is the Gradient tool. It can fill an area of a layer with a gradual blend between multiple colours. You can choose from a selection of pre-set gradient fills or create your own. It's a great way to add gradient filters for enhancing photographs, or to create effects such as vignettes and centre-spot soft-focus. Let's take a closer look at how it works.

You'll find the Gradient tool about halfway down the Tool Palette. It has its own unique set of options in the Tool Options bar, the main one being the Gradient Picker, which lets you choose from a list of pre-set gradients.




File Edit Image Layer Ty
899264.jpg @
Linear Gradient
50 300 350 400 450

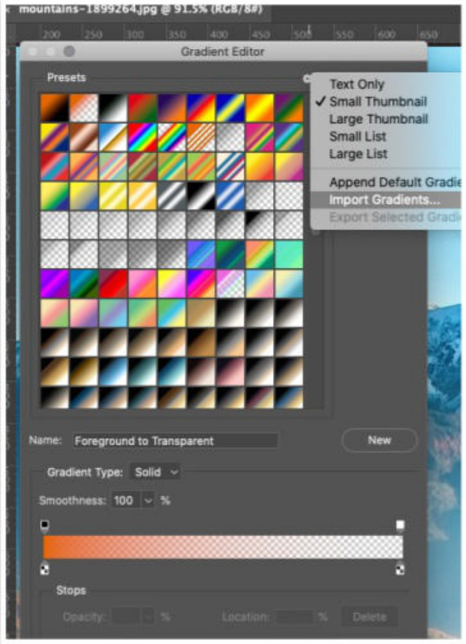
Next to this is a row of buttons that create different gradient shapes. The default setting is a straight Linear Gradient, but other options include Radial, Angle, Reflected and Diamond shapes.



Like the Brush tools the Gradient has blend modes that let you mix the gradient colour fill with the layer below it in various ways. This is a great way to enhance landscape shots, by using an orange-to-transparent gradient fill in Color mode, as in the example seen here.

Photoshop comes with a selection of default pre-set gradients loaded, but there are other packs of gradients available. You can load in these other packs via the Gradient menu. If you open the Gradient Picker you'll see a small icon like a cog wheel. If you click on this you'll see the menu, with the list of standard gradient packs available to load at the bottom.

Other Gradient tool options include the overall layer opacity, reversing the direction of the gradient colour mix, changing the "dither" of the colour mixing and toggling the transparency.



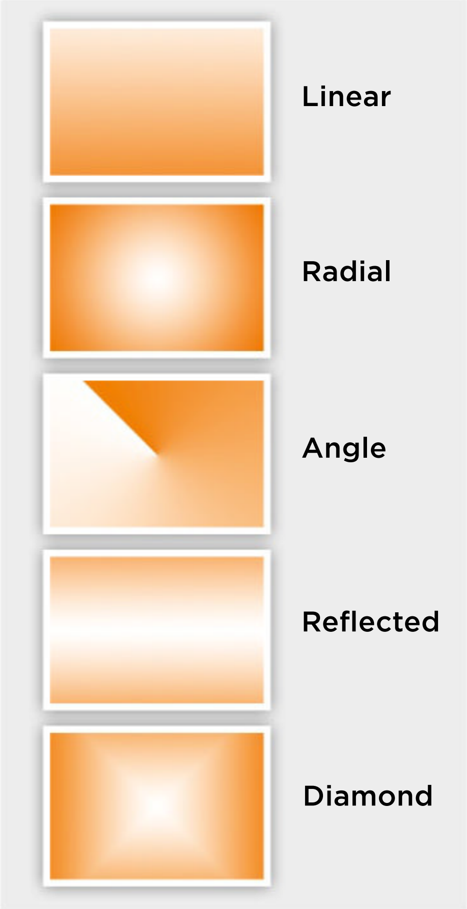
Name: Foreground to Transparent

Gradient Type: Solid

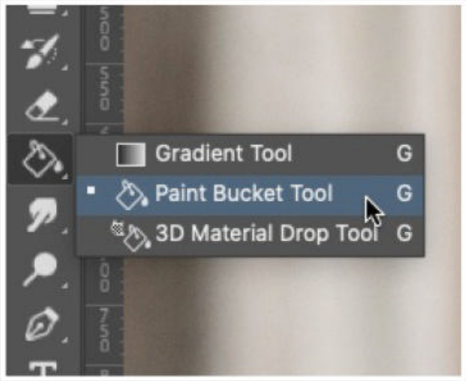
Smoothness: 100 %

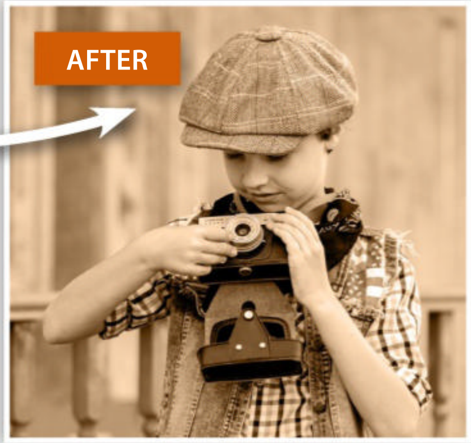
mountains-1899264.jpg @ 91.5% (RGB/8#)
Gradient Editor
Presets
Text Only
✓ Small Thumbnail
Large Thumbnail
Small List
Large List
Append Default Gradie
Import Gradients...
Export Selected Gradi
New
Stops
Opacity: %
Location: %
Delete

Below are the main gradient types that you can choose from the tool options bar at the top left of your screen.


Linear
Radial
Angle
Reflected
Diamond

Paint Bucket Tool


Gradient Tool G
Paint Bucket Tool G
3D Material Drop Tool G



If you click and hold on the Gradient tool you'll find that one of its options is the Paint Bucket tool, which is used to fill an area, a layer, or a selection with a solid colour. In combination with layer transparency and blend modes it's a great way to add a colour tint or filter to a whole image.

If you use the Paint Bucket on the background layer of your image it will fill in an area of contiguous colour in much the same way as the Magic Wand tool. To add a tint to a whole image, create a new layer then fill it with the colour. It will fill the whole layer and you can then use layer transparency and blend modes to achieve the effect you're looking for.

To get this vintage photo effect, we used a sand brown colour, at 100% opacity and a Colour blend mode, which combines the fill colour with the tones and colours of the background image.

USEFUL TIP

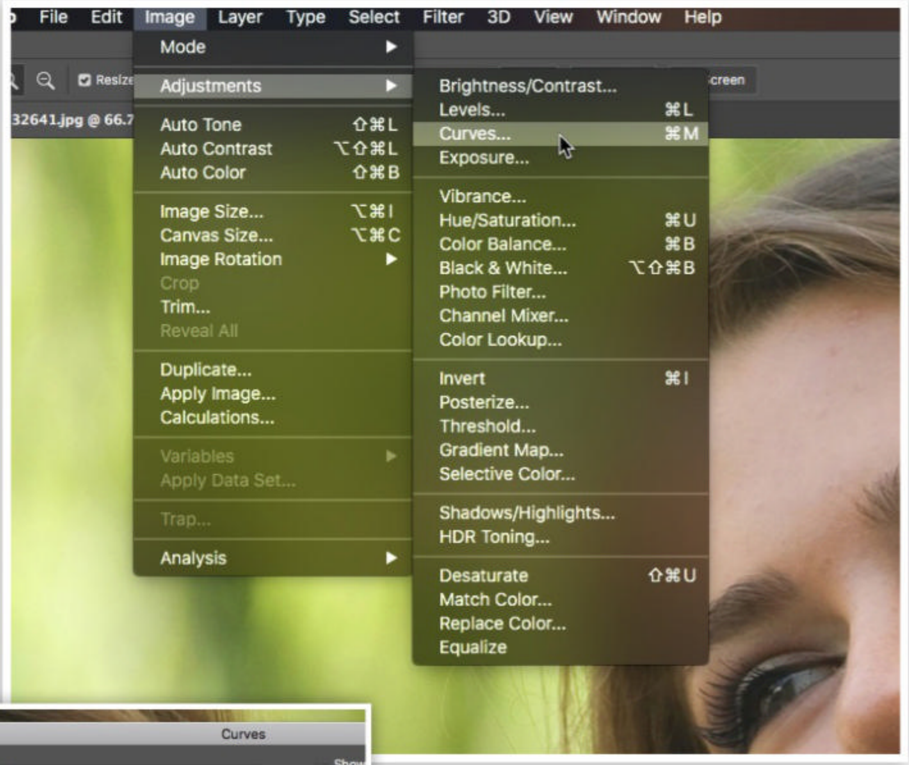
Remember that the Paint Bucket uses the same edge detection as the Magic Wand tool. If you want to fill the whole screen, use a new layer.

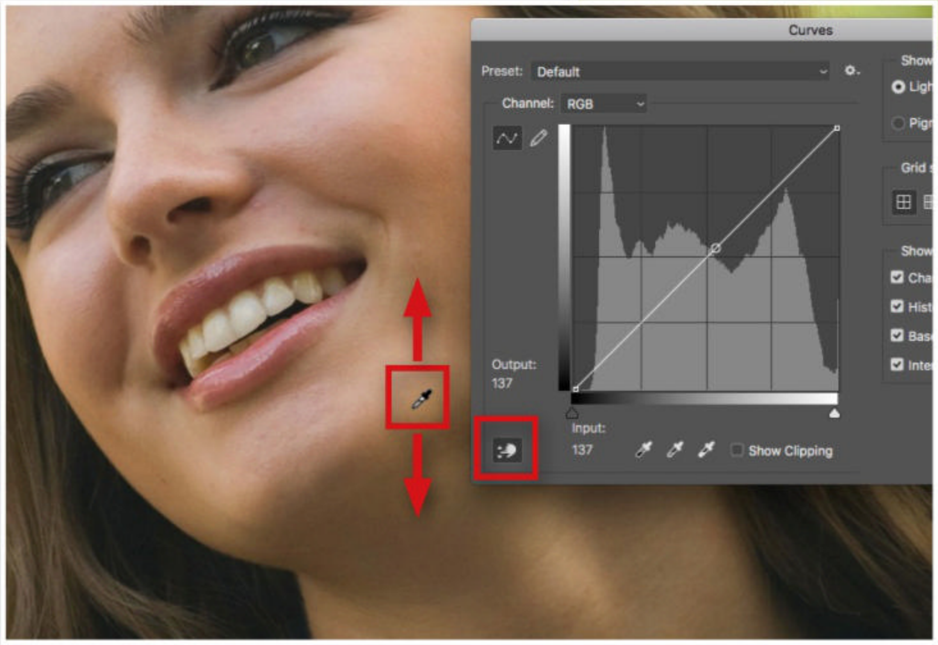
Curves and Levels

The most versatile way to adjust brightness and contrast in your digital images

You'll find the Curves function in the Image > Adjustments menu, or use the keyboard shortcut Cmd+M. The Curves dialog looks a bit daunting at first; a graph with a diagonal line running up the middle of it, like a difficult piece of maths homework. It's nothing to be scared of though and is in fact the most useful and versatile tool for making adjustments to the exposure and tonal balance of your images. We'll use this female portrait as the image to begin with. What we want to do first is crop it down so we just have the main part of her face and hair with some trees beyond.

The Curves graph is a histogram showing the relative strengths of different tones within the image. It shows the input distribution along the bottom of the graph and the output up the vertical axis. The straight diagonal line from corner to corner indicates that there is a 1:1 ratio between input and output at all tones; the output is exactly the same as the input, as you'd expect. It is by adjusting the line and altering the ratio of input tones to output tones, that we can achieve a number of effects. The left-hand end of the horizontal axis represents the darker tones, while the right-hand end represents the highlights.


File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer...
Color Lookup...
Invert ⌘I
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate ⇧⌘U
Match Color...
Replace Color...
Equalize

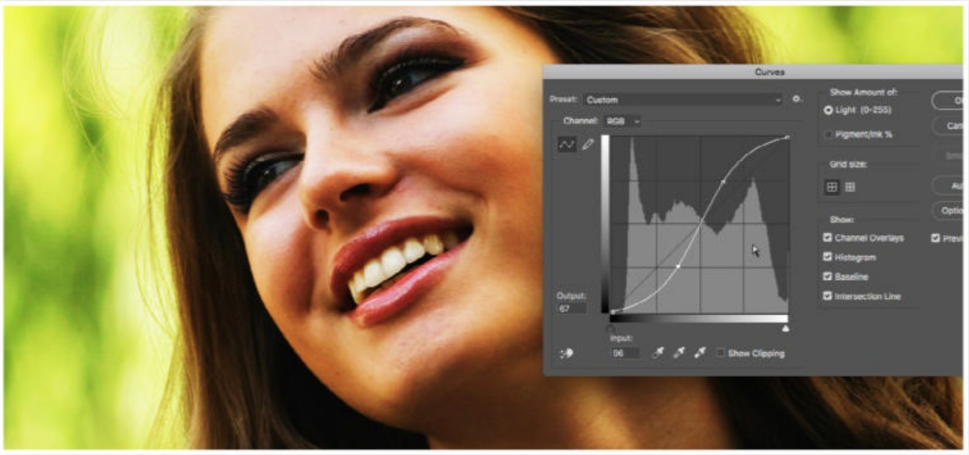

Curves
Preset: Default
Channel: RGB
Output: 137
Input: 137
Show Clipping

The Curves graph can be manipulated in several ways. You can move the line directly, by clicking on it to place new anchor points and then dragging these points into new positions. You can also use the arrow keys to nudge a selected point up, down, left or right. There's no limit to where the line can start or finish, or where it goes in between, which can lead to some extraordinary results.

In later versions of Photoshop there's an even more useful way to use Curves. Just to the lower left of the histogram you'll see a button with a hand and two arrows on it. If you click this button and then move the cursor over the image you'll notice a point on the line move up and down as the cursor passes over lighter and darker areas. Pick a spot that you want to lighten, click on it and drag upward and you'll see the tone curve move to match. Using this awesome feature you can selectively lighten or darken pretty much every tone in the image.

Boosting Contrast

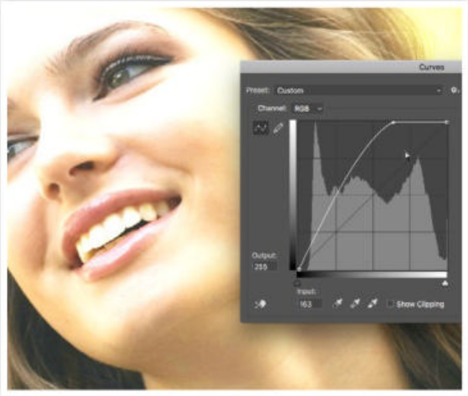
Add two anchor points to the tone curve roughly one-third of the way from either end. Drag the shape of the line into a narrow S-shaped curve, slightly raising the upper half of the curve and lowering the lower half of it, leaving the mid-point and both ends in the same positions. This will brighten the lighter areas of the image, while darkening the darker areas, increasing the contrast while maintaining the same overall exposure. It's an excellent way to make very precise adjustments to contrast. Mid-tone lightness can be adjusted by moving the mid-point on the curve up or down.



Preset: Custom
Channel: RGB
Output: 67
Input: 96
Show Amount of: ● Light (0-255) ○ Pigment/Ink %
☑ Channel Overlays
☑ Histogram
☑ Baseline
☑ Intersection Line
☐ Show Clipping

Curves
Grid size:
Show:

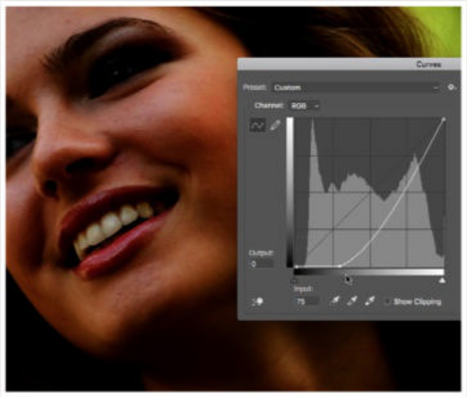
Emphasising Highlights



Preset: Custom
Channel: RGB
Output: 255
Input: 163
☐ Show Clipping

To boost the highlights of an image move the highest point leftwards along the top horizontal axis. This increases the brightness of the lighter pixels and may cause the brighter highlights to be burned out, but the result can be quite pleasing for the right kind of image. This technique works well in monochrome, producing an ethereal high-key image.

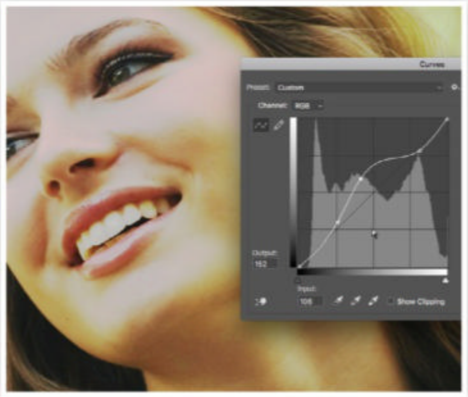
Emphasising Shadows



Preset: Custom
Channel: RGB
Output: 0
Input: 75
☐ Show Clipping

Moving the lowest point on the curve to the right will darken the shadows, but this will lose both shadow and mid-tone detail. This can be alleviated by moving the mid-point of the curve upwards slightly, flattening the upper part of the curve and brightening the mid-tones. This emphasising of shadows is very similar to boosting contrast, but can create a more extreme result.

Brightening Mid-tones



Preset: Custom
Channel: RGB
Output: 152
Input: 106
☐ Show Clipping

For images with very high contrast sometimes it is necessary to boost the mid-tones to balance the image. To do this, set three points on the tone curve at roughly equal positions along the curve and then move the middle one upwards to achieve the effect. The other two points act as anchors, keeping the shadows and highlights unchanged. Moving the mid-point downwards has the opposite effect.

Levels

A quick, easy and accurate way to adjust brightness and contrast

In the Image > Adjustments menu you'll also find the Levels function, keyboard shortcut Cmd + L. The Levels function is easier to use than Curves and lets you quickly adjust the black and white points and overall brightness of your image. It's particularly useful for images that contain a lot of light or dark areas, such as dark objects on a light background, because it provides a method for fixing the lightest and darkest areas of the image, while leaving the mid-tones free to be adjusted upward or downward.

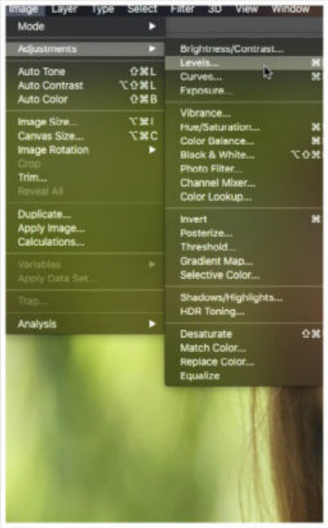
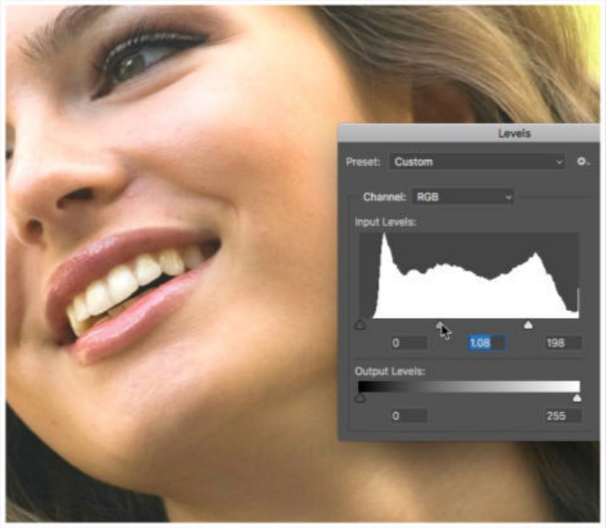


Image
Layer
Type
Select
Filter
3D
View
Window
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...
Desaturate
Match Color...
Replace Color...
Equalize



Preset: Custom
Channel: RGB
Input Levels: 0 1.08 198
Output Levels: 0 255

Cropping and Resizing

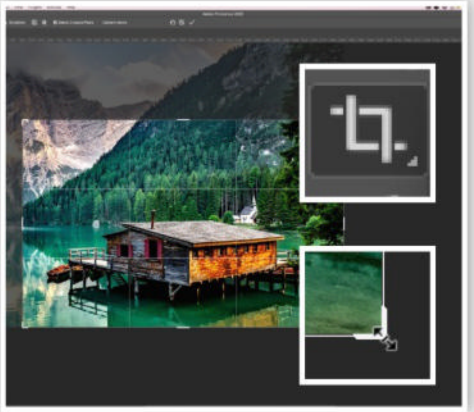
Changing the size of a digital photograph

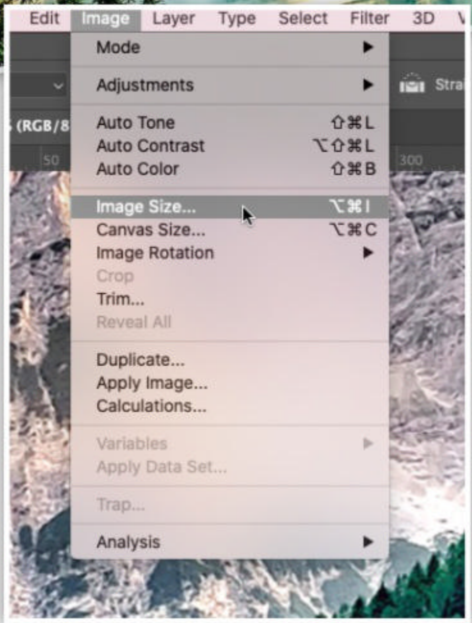
Sometimes a digital photograph can be the wrong size. Maybe you've got too much of the surroundings in the picture, when you wanted to concentrate on just the main subject, or maybe the whole image is too big, and you need to make it smaller to send via email or publish on a website. Doing both of these things is very quick and simple in Photoshop.

We'll use this landscape shot of an old shack and lake as the image to start with. What we want to do first is crop it down so we just have a tighter view of the shack.

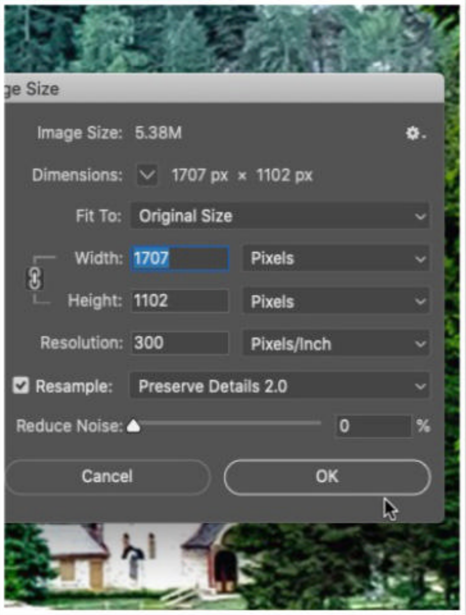
01 The best tool for the job is, not surprisingly, the Crop Tool. You'll find it in the tool palette, fourth down from the top. It looks a bit like two set-squares.

02 The Crop Tool is very easy to use. Simply click near one corner and then drag a box around the area you want to crop. Don't worry if you don't get the size exactly right first time, because you can adjust the size of the box by using the drag-handles on each side and corner. Press Enter to perform the crop.




Edit
Image
Layer
Type
Select
Filter
3D
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis

03 Next we'll resize the image to make it a more manageable size. To do this you'll need to get to the Image menu and select Image Size, or use the keyboard shortcut Alt + Cmd + I.



ge Size

Image Size: 5.38M

Dimensions: 1707 px × 1102 px

Fit To: Original Size

Width: 1707 Pixels

Height: 1102 Pixels

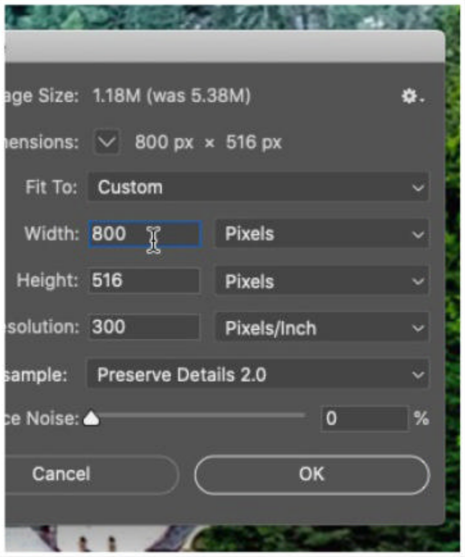
Resolution: 300 Pixels/Inch

☑ Resample: Preserve Details 2.0

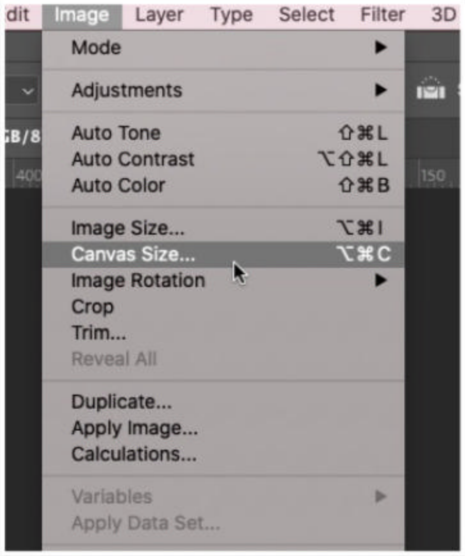
Reduce Noise: 0 %

Cancel OK

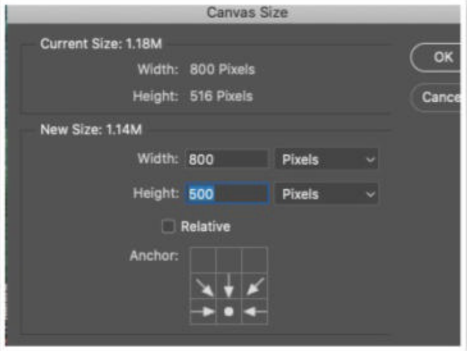
04 In the Image Size dialog box, check the box marked Resample Image, and open the drop-down option panel below it. We're reducing the size of this picture, so select Preserve Details 2.0.


age Size: 1.18M (was 5.38M)
ensions: 800 px × 516 px
Fit To: Custom
Width: 800 Pixels
Height: 516 Pixels
solution: 300 Pixels/Inch
sample: Preserve Details 2.0
ce Noise: 0 %

05 In the Pixel Dimensions panel, enter the width that you want your image to appear. If we were preparing this picture for a website, a width of 800 pixels would be ideal. The height will change automatically to keep the aspect ratio the same. Press OK to resize the picture.


dit
Image
Layer
Type
Select
Filter
3D
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...

06 Next, go back to the Image menu, but this time choose Canvas Size, or use the keyboard shortcut Cmd + Alt + C. Canvas Size will allow you to be able to extend the dimensions of your current document by adding extra pixels to the image. Bear in mind this is different than simply resizing the image.


Canvas Size
Current Size: 1.18M
Width: 800 Pixels
Height: 516 Pixels
New Size: 1.14M
Width: 800 Pixels
Height: 500 Pixels
☐ Relative
Anchor:

07 You'll see the current size in pixels at the top of the panel, with the width as 800 pixels. In the lower window put in a height of 500 pixels. If your main subject is not in the centre of the frame, you can alter the anchor point by clicking on the arrows surrounding the box below. Click OK to perform the resize. You'll get a warning that you're about to chop off part of the image, but just ignore it.

Now we've resized the image to 800 x 500, a convenient size for display on many mobile devices, and ideal for uploading to a website or sending via email.

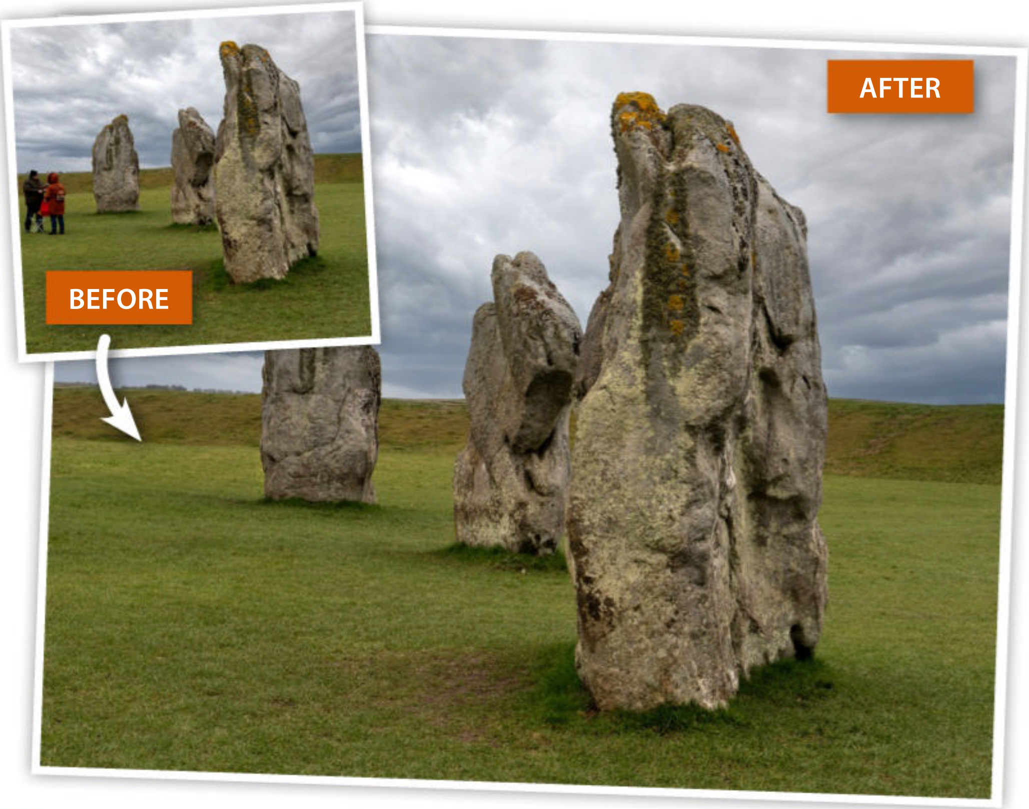
Generative Fill Content Removal

Use new AI-powered Generative Fill to remove unwanted objects from your photos

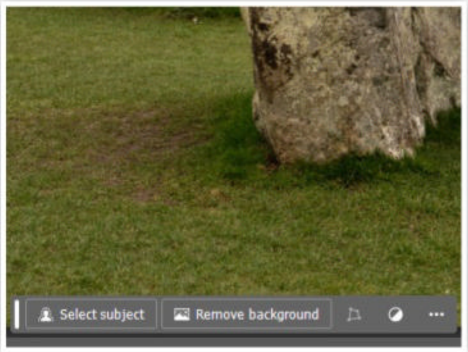
Probably the most useful of Photoshop's new AI-powered tools is Generative Fill, a powerful feature which we can use to remove unwanted objects from your photos quickly and seamlessly. Previously, we would have to spend time painstakingly applying the Clone Stamp brush to cover up unwanted objects, and even then the results would often be disappointing, with obvious patches of texture repetition or mismatched shadow. Generative Fill can produce vastly superior results in seconds using the amazing power of AI image generation.

Generative Fill is quick and easy to use, requiring nothing more than a selection tool and a few menu choices, and produces unbelievably good results. Let's give it a try on this photo of the famous Avebury Stones in Wiltshire, England. Let's see if we can remove the couple on the left, who are messing up this otherwise well-balanced shot.

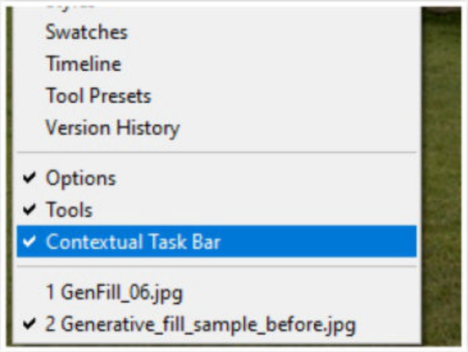
Note that you will need to have an active Internet connection to use Photoshop's new AI features, including the Generative Fill function.


BEFORE
AFTER

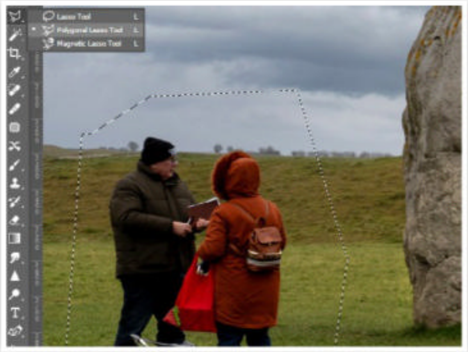
01 Generative Fill is one of the contextual options that is available from the Contextual Task Bar, which was introduced in the previous Photoshop update. Having the Contextual Task Bar switched on will make the following task easier, so let's do that as a first step.


Select subject
Remove background

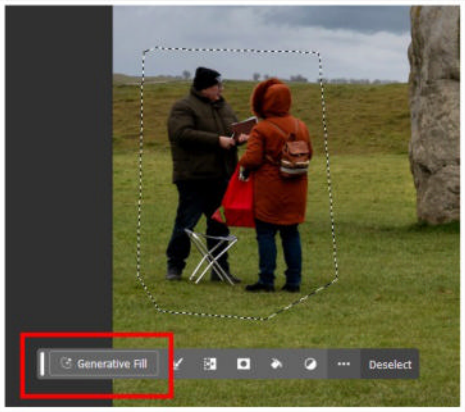
02 In the menu bar, click on the Windows menu. Right down at the bottom of the list, you should find the option for Contextual Task Bar. Click on this to toggle the taskbar to On. As soon as you release the menu, you should see the Contextual Task Bar appear on the screen.


Swatches
Timeline
Tool Presets
Version History
✓ Options
✓ Tools
✓ Contextual Task Bar
1 GenFill_06.jpg
✓ 2 Generative_fill_sample_before.jpg

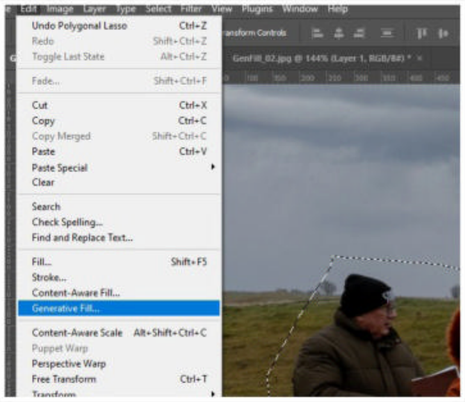
03 To get started with the process of removing the unwanted element from the image, from the tool sidebar, click and hold on the Lasso Tool icon, and from the fly-out menu select the middle option, the Polygonal Lasso tool.


Lasso Tool L
Polygonal Lasso Tool L
Magnetic Lasso Tool L

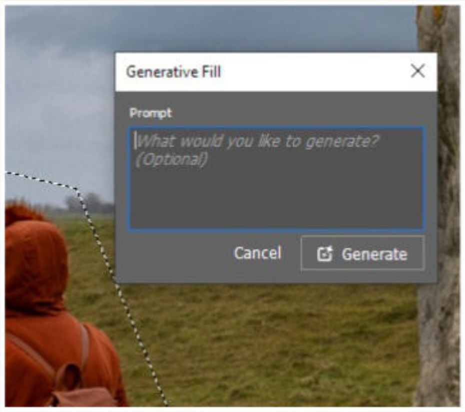
04 As soon as you've made your selection, you should see Generative Fill button appear as an option in the Contextual Task Bar, just below the area you've selected. You can simply click on this button to begin the process.


Generative Fill
Deselect

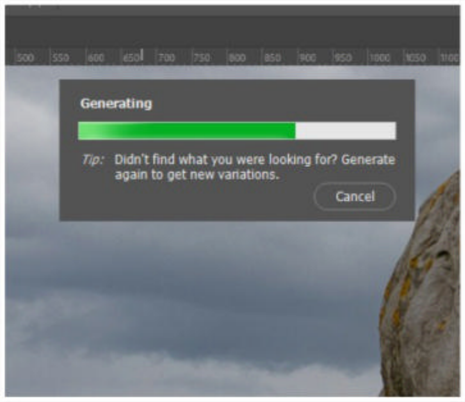
05 If for any reason you don't want to use the Contextual Task Bar (admittedly it can sometimes get in the way, so you may have it turned off), Generative Fill is available as an option in the Edit menu, so you can select it from there.


Edit Image Layer Type Select Filter View Plugins Window Help
Undo Polygonal Lasso Ctrl+Z
Redo Shift+Ctrl+Z
Toggle Last State Alt+Ctrl+Z
Fade... Shift+Ctrl+F
Cut Ctrl+X
Copy Ctrl+C
Copy Merged Shift+Ctrl+C
Paste Ctrl+V
Paste Special
Clear
Search
Check Spelling...
Find and Replace Text...
Fill... Shift+F5
Stroke...
Content-Aware Fill...
Generative Fill...
Content-Aware Scale Alt+Shift+Ctrl+C
Puppet Warp
Perspective Warp
Free Transform Ctrl+T
Transform

06 Select Generative Fill, and you'll see this new dialogue box appear. You can type a prompt into this window if you want to generate something specific, but for simple object removal, you can leave the prompt blank and just let the AI work its magic. Click on Generate.

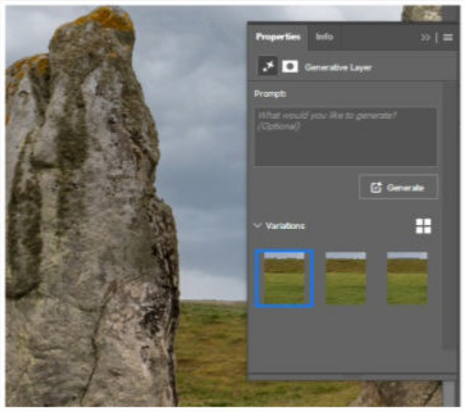

Generative Fill
Prompt
What would you like to generate? (Optional)
Cancel
Generate

07 As soon as you click the button, the generative AI process begins. If you haven't added a specific prompt, it will analyse the selected area and create a matching background to fill it in with. Depending on the size of the selection and the complexity of the image it could take a minute or so.

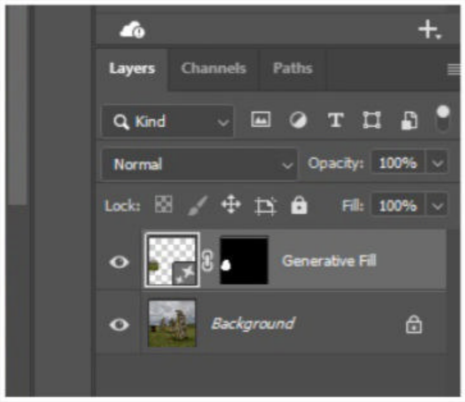

Generating
Cancel

Tip: Didn't find what you were looking for? Generate again to get new variations.

08 Once the process has been completed, you'll see a new fly-out panel appear on the right of the screen, showing the Generative Layer properties. There will be three alternate options for the generated result, so you can pick which one you think looks best.

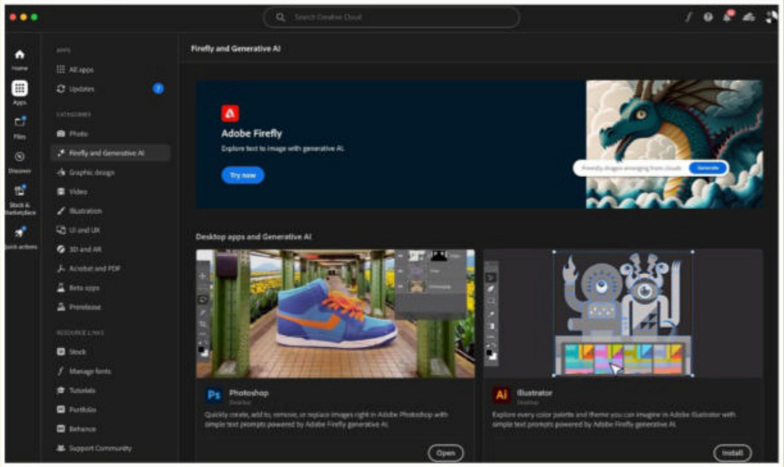

Properties
Info
Generative Layer
Prompt:
What would you like to generate? (Optional)
Generate
Variations

09 Whichever option you choose, we're sure you'll agree that the results are amazingly good when compared to even Content-Aware fill, and vastly better than any manual result. If you've finished with this image, you can now flatten the layers and save the result as a new JPEG image.


Layers
Channels
Paths
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Generative Fill
Background

How To Access AI Powered Features

To use both the Generative Expand and Fill AI based features of Photoshop you will firstly need to download and install the Beta version of Photoshop with the Firefly add-ons incorporated. You can begin from the Open screen of Photoshop. If you click on Show Suggestions, you'll receive a prompt to try the Beta version. Clicking on the prompt will take you to your Creative Cloud apps screen. Alternatively, you can open Creative Cloud from your Start menu and click on the Apps button. Either way, you need to click on the Install button on the Photoshop (Beta) panel. The download and installation are automatic, and will take a few minutes. Once the Beta version of Photoshop is installed it should open automatically, but if it doesn't you can launch it from your Start menu, or from the Creative Cloud apps screen. You should see a welcome screen that looks like this. Click on Try it now to get started.


Firefly and Generative AI
Adobe Firefly
Explore text to image with generative AI
Try now
Desktop apps and Generative AI
Photoshop
Illustrator
Open
Install

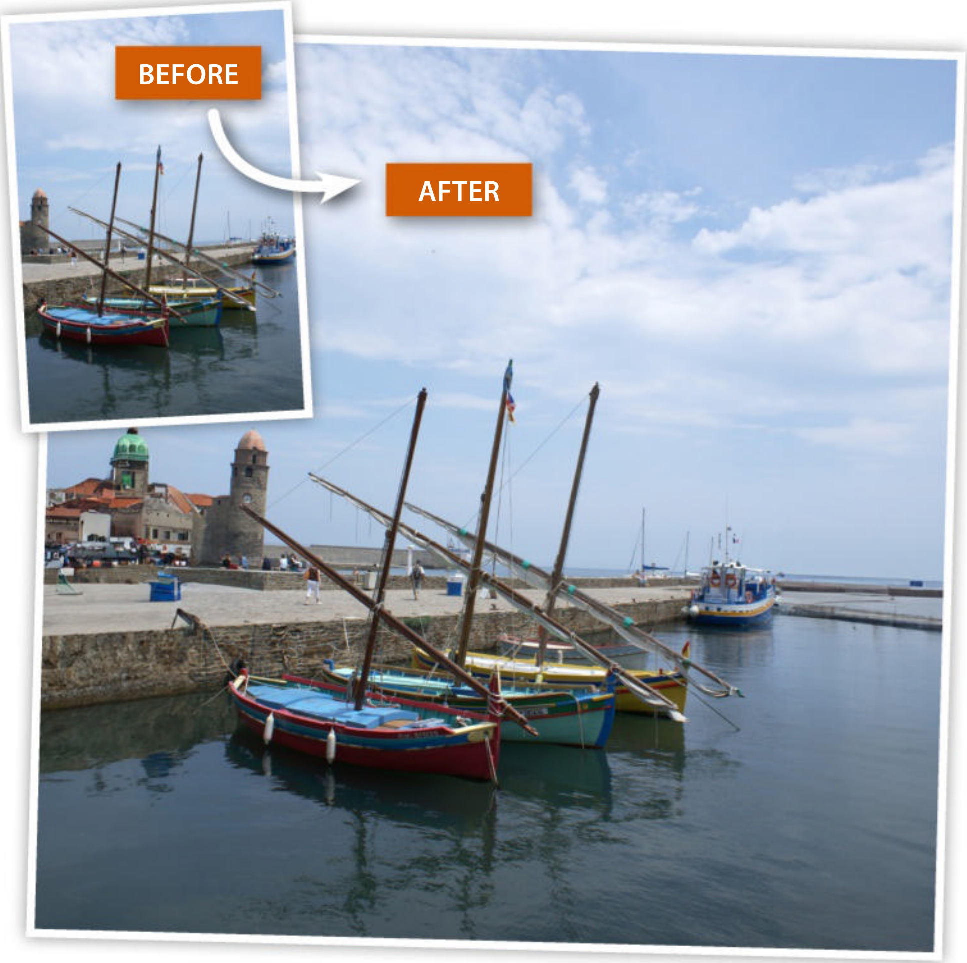
Use Generative Expand to go big

Change aspect ratios and add new content with the new AI-powered Generative Expand feature

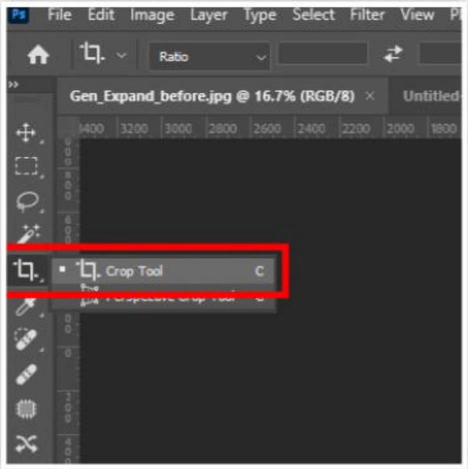
Up until now, if you shot a photo in either vertical or horizontal aspect ratio, then that was a decision you'd have to live with. You could change the aspect ratio by cropping the frame, but that would mean losing a large proportion of the image, usually not a satisfactory solution.

Now, however, the new Generative Expand feature allows you to change the aspect ratio of your image by adding new AI-generated content, calculated to blend in seamlessly with the previously existing image. Although the quality and authenticity of the additions will vary to some extent depending on the content of the original image, under most circumstances the results are astonishingly good. Let's take a look at how this apparent miracle works. As our example, we'll use this vertical-format shot of fishing boats in the French harbour town of Collioure, and convert it to a square format.

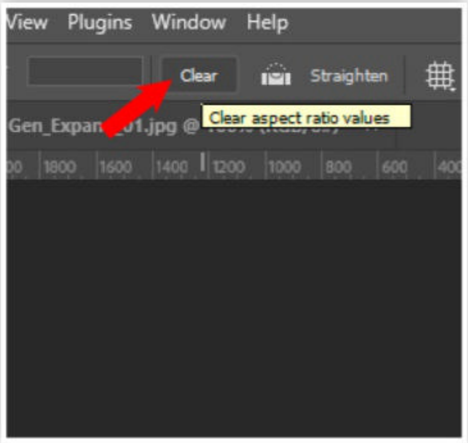
Note that as with Generative Fill, you will need to have an active Internet connection to use the Generative Expand function, since the AI content is generated by Adobe's servers.


BEFORE
AFTER

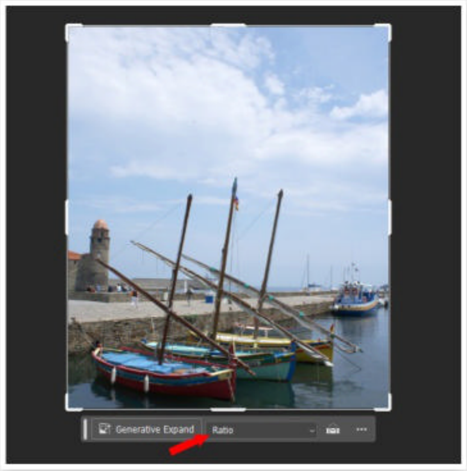
01 Generative Expand is an AI function that has been added to the Crop Tool. Open the picture you want to modify, and then select the Crop Tool from the toolbar. It's the fourth one down and looks like two crossed set-squares.


File
Edit
Image
Layer
Type
Select
Filter
View
Ratio
Gen_Expand_before.jpg @ 16.7% (RGB/8)
Untitled
Crop Tool
C

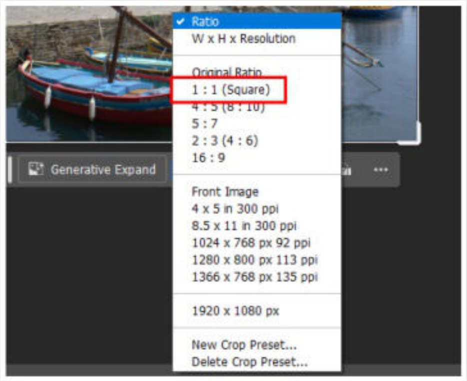
02 If you've used the Crop Tool recently, it may already be set to a specific ratio. If so, click on the Clear button to reset it. If you choose another tool, and then choose the Crop Tool again, you'll see that the crop frame now surrounds the entire image.


View
Plugins
Window
Help
Clear
Straighten
Clear aspect ratio values
Gen_Expan 01.jpg @

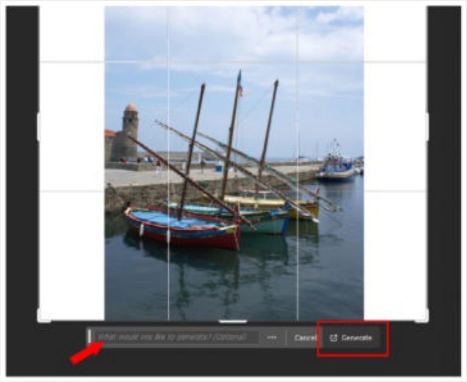
03 The easiest way to control Generative Expand is via the Contextual Task Bar. If you don't have that active, see the section on Generative Fill for instructions on how to activate it. Once it's visible, click on the Ratio button.


Generative Expand
Ratio

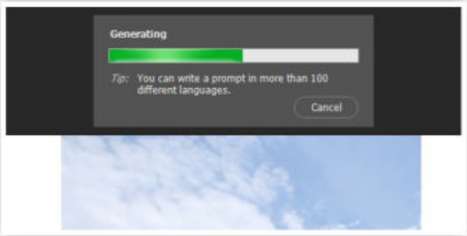
04 You'll see a pop-up menu showing a range of available pre-set aspect ratios. You can just drag the sides of the crop frame to whatever size you want, but for this picture, we'll select the square ratio, 1:1.


Ratio
W x H x Resolution
Original Ratio
1 : 1 (Square)
4 : 5 (8 : 10)
5 : 7
2 : 3 (4 : 6)
16 : 9
Front Image
4 x 5 in 300 ppi
8.5 x 11 in 300 ppi
1024 x 768 px 92 ppi
1280 x 800 px 113 ppi
1366 x 768 px 135 ppi
1920 x 1080 px
New Crop Preset...
Delete Crop Preset...
Generative Expand

05 The Crop frame expands to the square ratio, leaving white bars down either side of the image that will be filled in with AI-generated content. You can add a prompt if you want to fill them with something specific, or leave it blank to let the AI create matched content. Click on Generate.

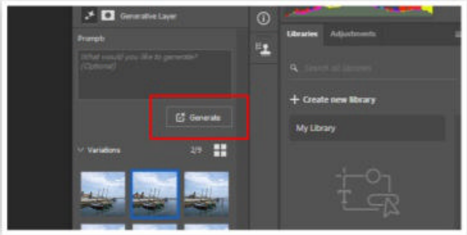

What would you like to generate? (Optional)
Cancel
Generate

06 The Generative AI function will now calculate the appropriate content to fill in the blanks. Depending on the size and complexity of the image, this may take a minute or two, but it's usually pretty quick.

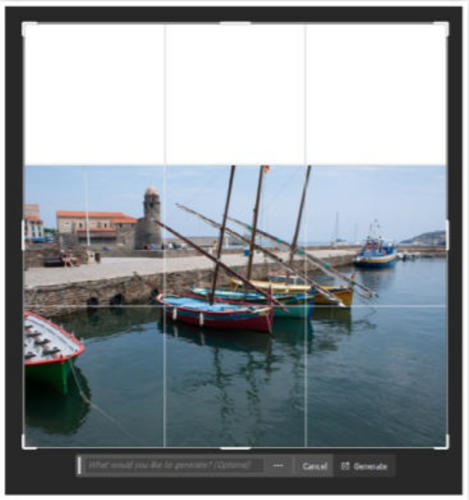

Generating
Cancel

Tip: You can write a prompt in more than 100 different languages.

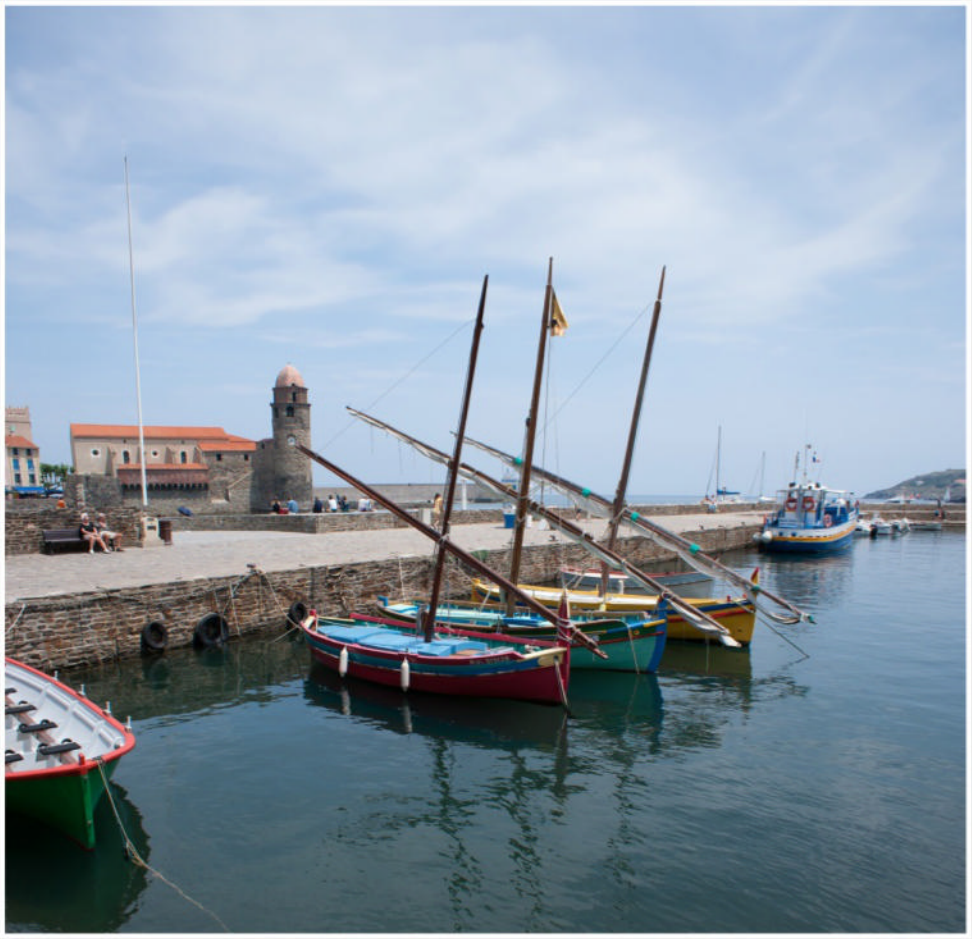
07 Once the AI has done its thing, you'll see the immediate result; the previously empty white bars are filled in with AI-generated content. You'll also see a new Properties menu with two other optional results. If you don't like any of them, click Generate to produce three more.


Generative Layer
Prompt
What would you like to generate? (Optional)
Generate
Variations
2/9
Libraries
Adjustments
Create new library
My Library

08 Generative Expand will also work in the vertical direction, by dragging the borders of the crop box upward or downward. In this case, we'll add some height to this landscape-format image by dragging the box upward to produce a square format.


What would you like to generate? (Optional)
Cancel
Generate

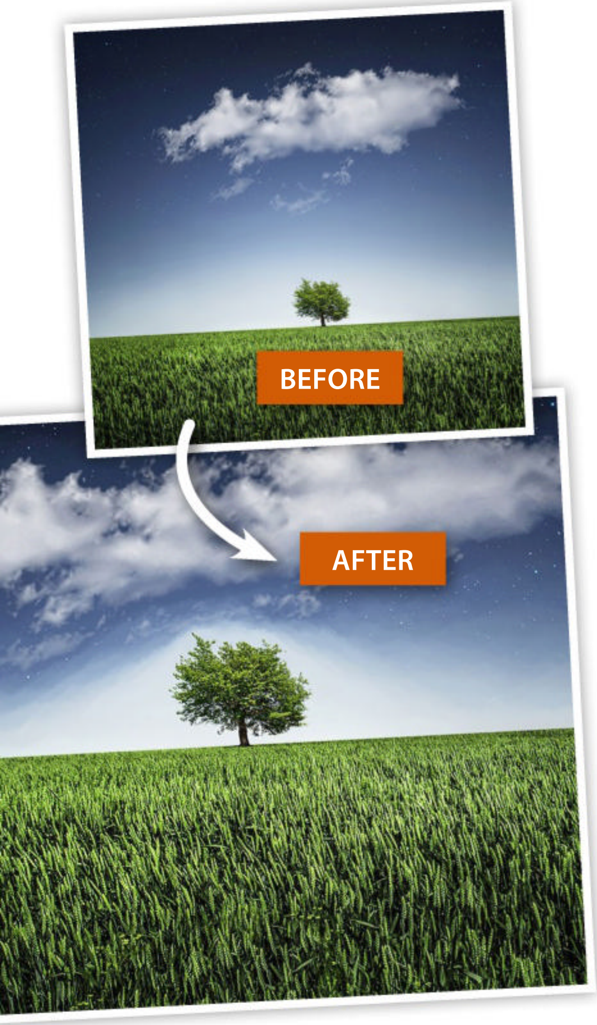
09 If you compare this expanded image with the Before shot on the facing page, you'll see what an impressive job Generative Expand has done of filling in the mast tops of the boats. It's almost indistinguishable from the real thing.



Content-aware Fill and Scale

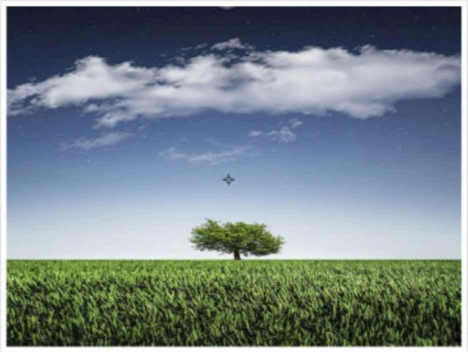
Photoshop contains image processing technology so advanced it looks like magic

Photoshop CS4 introduced the world to an amazing new technology called Content-aware Scaling, which can resize an image while preserving the proportions of important image elements. It works by analysing the image and removing lines of pixels that contain relatively little information, so that a plain background will be affected before the main subject. The best way to illustrate the effect is with examples, such as this image of a tree and clouds.

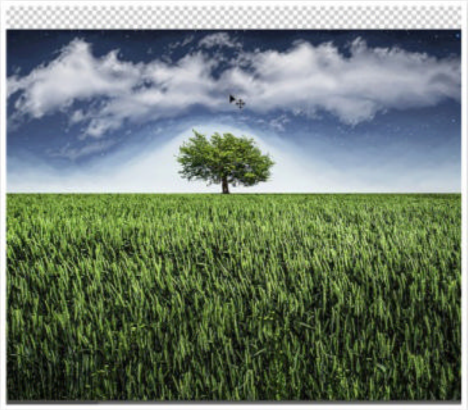

BEFORE
AFTER

Content-aware Scaling

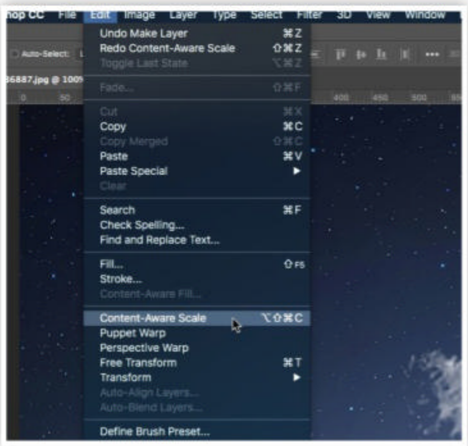
01 If we resize the image vertically by 60 percent using the standard Photoshop Image Size menu option, the tree and clouds will end up looking flattened and out of proportion, since their height has also been reduced by about 60 percent.



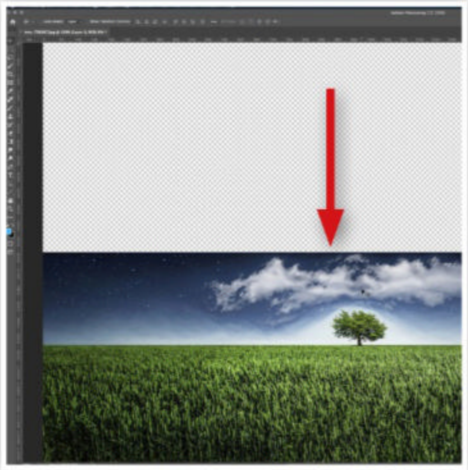
02 However if we use Content-aware Scaling, the clever algorithm detects that the areas that are just sky contain relatively little information and so this time when we re-scale the image it deletes those pixels first, preserving the more information-rich pixels that hold the details including the tree. As a result a 60 percent height reduction leaves the scene looking relatively unchanged, although the area of blue sky has been reduced.



03 You'll find Content-aware Scaling in the Edit menu, but it will be greyed out unless you've converted the image into a layer.


File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Undo Make Layer ⌘Z
Redo Content-Aware Scale ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...
Auto-Blend Layers...
Define Brush Preset...

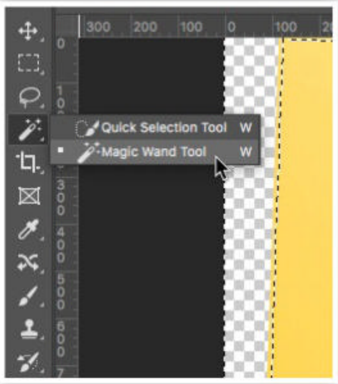
04 You use Content-aware Scaling in just the same way as the normal Image Size option. Either drag the handles on each edge in the direction you want, or directly enter the proportions into the text boxes on the tool options bar. Content-aware Scaling works for both height and width and can also be used to enlarge an image.

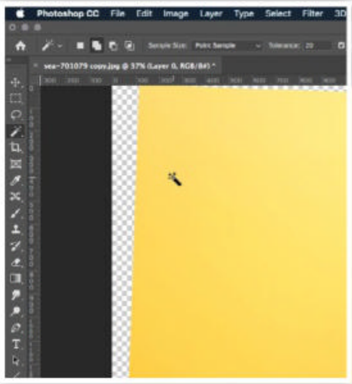


Content-aware Fill and Move

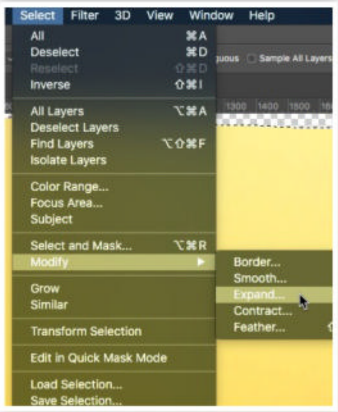
Photoshop CS5 took the content-aware technology further with the introduction of Content-aware Fill. This extremely useful function can fill in blank areas of an image with an approximation of the surrounding area, which makes it particularly handy for filling those triangular edges that are left after rotating an image, for example when levelling the horizon line. Again it's relatively easy to use.

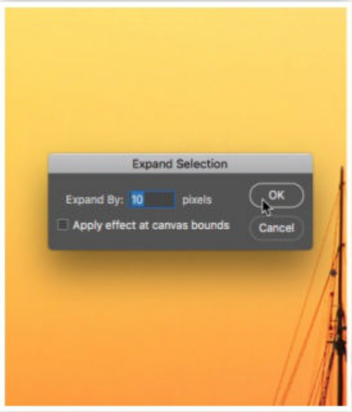
01 Starting with an image that has just been rotated, leaving those empty triangles, take the Magic Wand tool and select the plain areas.


Quick Selection Tool W
Magic Wand Tool W



02 Next, go to the Select menu and click on Modify > Expand. Increase the selection area by a decent amount; for this picture 10 pixels should do nicely.

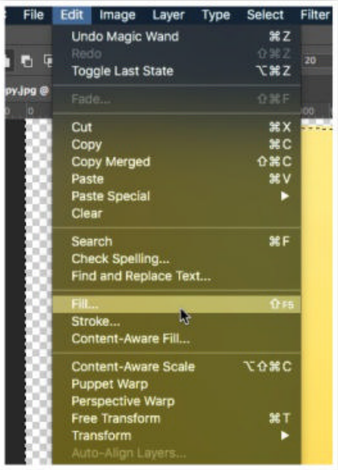

Select
Filter
3D
View
Window
Help
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...
Border...
Smooth...
Expand...
Contract...
Feather...

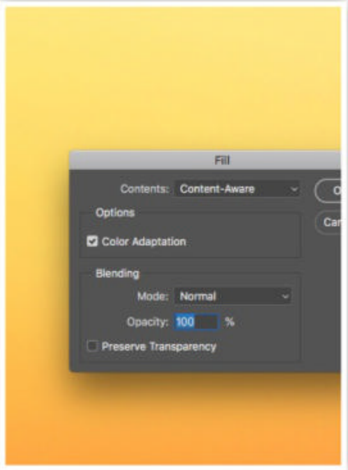

Expand Selection

Expand By: 10 pixels

☐ Apply effect at canvas bounds

03 You'll find Fill in the Edit menu. Click on it and you'll see the Fill options window appear. Content-aware should be selected by default, but if not choose it from the drop-down menu.


File
Edit
Image
Layer
Type
Select
Filter
Undo Magic Wand ⌘Z
Redo ⇧⌘Z
Toggle Last State ⌥⌘Z
Fade... ⇧⌘F
Cut ⌘X
Copy ⌘C
Copy Merged ⇧⌘C
Paste ⌘V
Paste Special
Clear
Search ⌘F
Check Spelling...
Find and Replace Text...
Fill... ⇧F5
Stroke...
Content-Aware Fill...
Content-Aware Scale ⌥⇧⌘C
Puppet Warp
Perspective Warp
Free Transform ⌘T
Transform
Auto-Align Layers...


Fill

Contents: Content-Aware

Options

☑ Color Adaptation

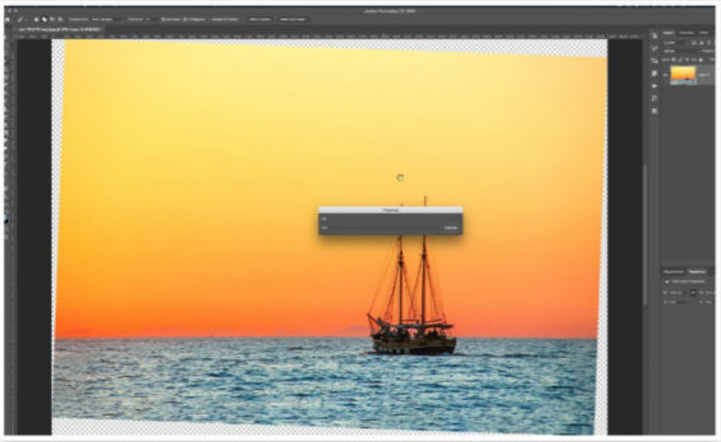
Blending

Mode: Normal

Opacity: 100 %

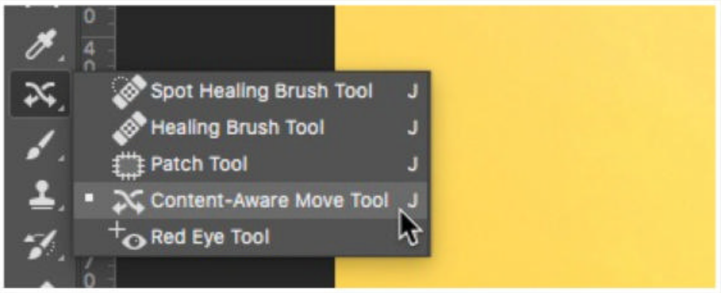
☐ Preserve Transparency

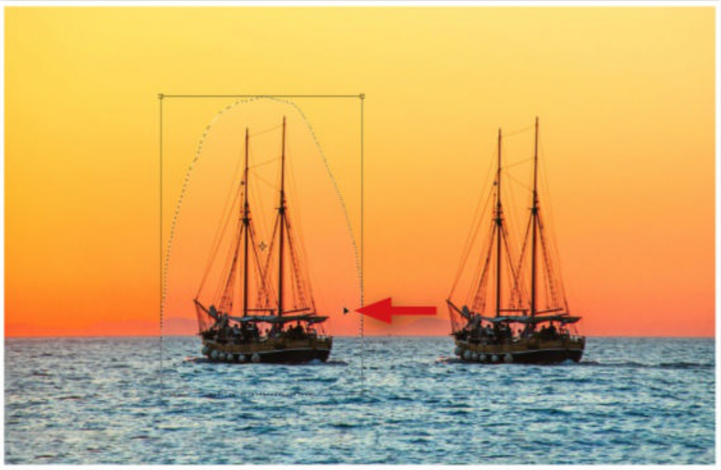
04 There will be a short pause while Photoshop analyses the image, but then it will fill in the blank areas with a texture derived from the content of the immediately surrounding area.

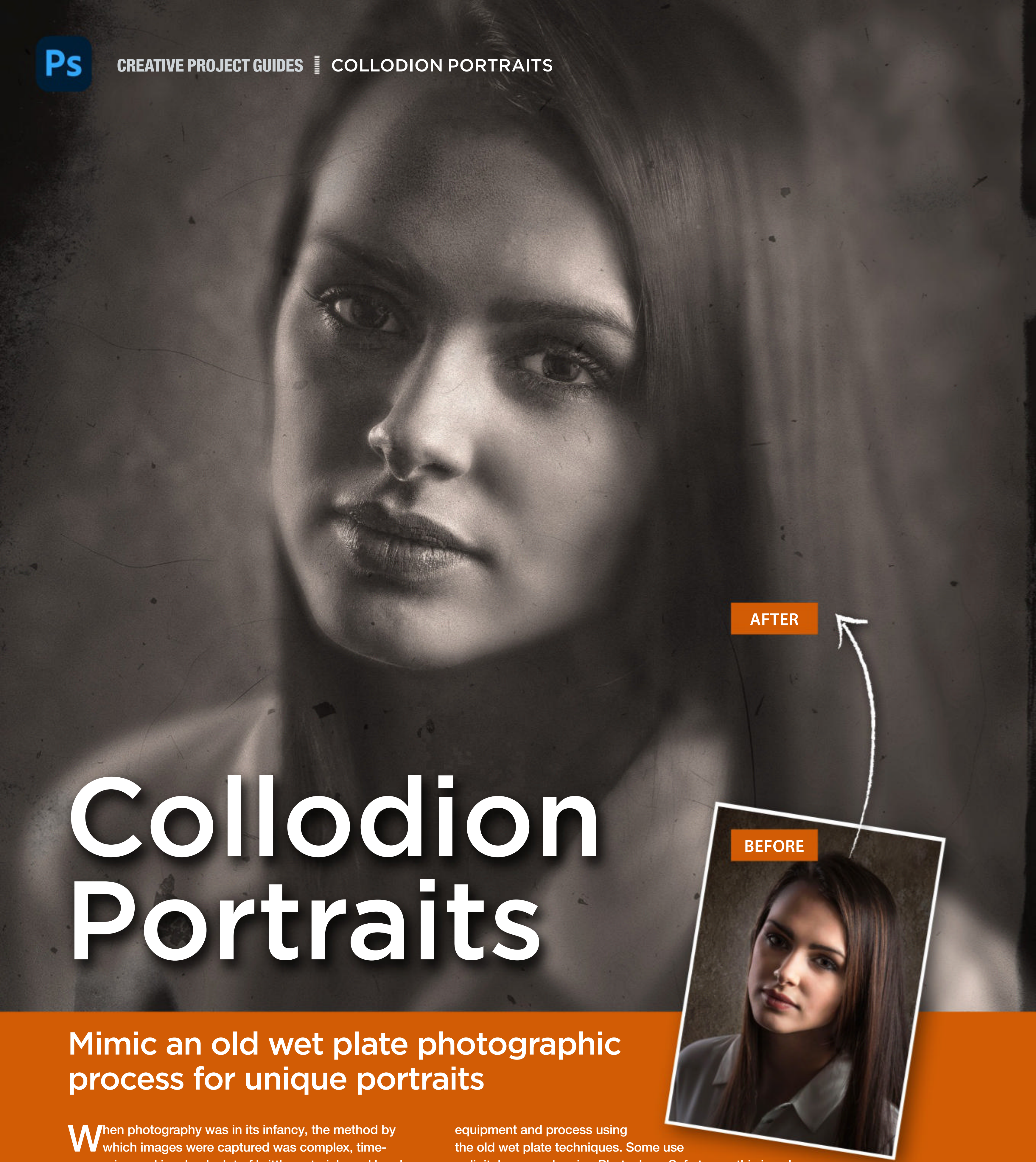


05 Content-aware Move is a new feature introduced with Photoshop CS6 and uses the same technology as Content-aware Fill. The idea is that you can select an object on a background and move it to a new area of the image. The Content-aware algorithm should automatically fill in the area that you moved from and also blend in the moved object.

In practice it's not actually much use unless the object to be moved is on a virtually plain background, in which case it's often simpler to use the Clone Stamp anyway, but some people may find it useful.


Spot Healing Brush Tool J
Healing Brush Tool J
Patch Tool J
Content-Aware Move Tool J
Red Eye Tool J





Collodion Portraits

Mimic an old wet plate photographic process for unique portraits

When photography was in its infancy, the method by which images were captured was complex, time-consuming and involved a lot of brittle materials and harsh chemicals. That said, some early wet plate images are amazing to behold even now. So great is the lasting impact of these early photographs that photographers today actively seek out ways to replicate the look. Some actually use the old equipment and process using the old wet plate techniques. Some use a digital approach using Photoshop. Safe to say this is only an approximation of the result you would get if you did it for real but since not everyone has access to old bellows cameras, darkrooms, plates and chemicals, here is our version of the classic effect given a Photoshop twist.

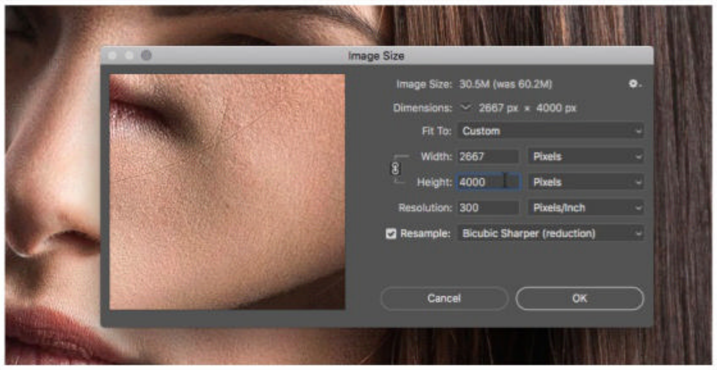
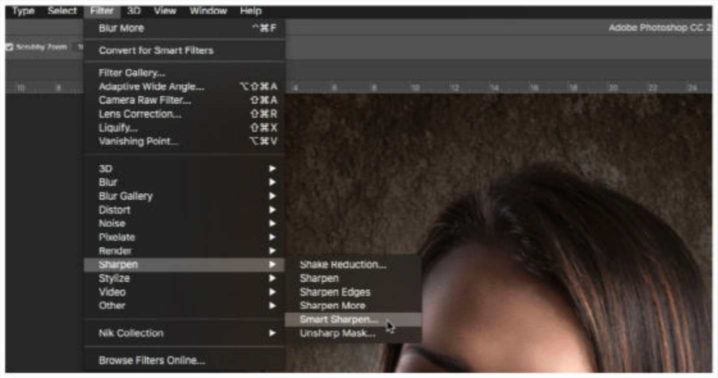
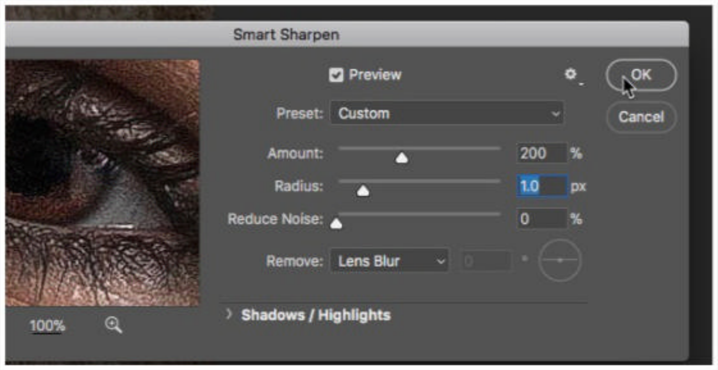


Image Size
Cancel
OK

Image Size: 30.5M (was 60.2M)
Dimensions: 2667 px × 4000 px
Fit To: Custom
Width: 2667 Pixels
Height: 4000 Pixels
Resolution: 300 Pixels/Inch
☑ Resample: Bicubic Sharper (reduction)

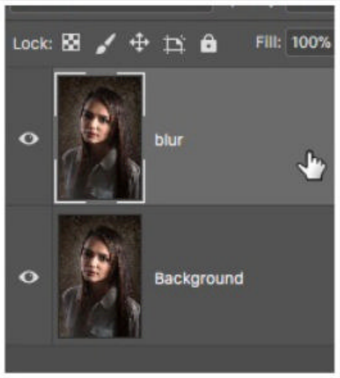
01 Let's start off with a suitable head and shoulders portrait as typified by so many classic portraits done in this style. This example is a portrait of Courtney. It is 2667 pixels wide by 4000 pixels deep. The settings are based on an image this size.

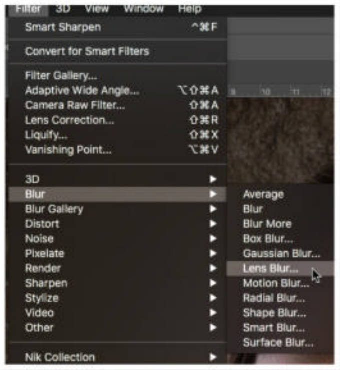

Type Select Filter 3D View Window Help
Blur More
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle...
Camera Raw Filter...
Lens Correction...
Liquify...
Vanishing Point...
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Nik Collection
Browse Filters Online...
Shake Reduction...
Sharpen
Sharpen Edges
Sharpen More
Smart Sharpen...
Unsharp Mask...
Adobe Photoshop CC 2

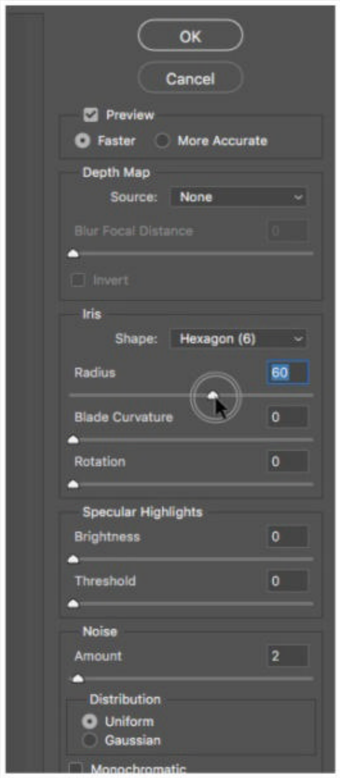

Smart Sharpen
OK
Cancel

☑ Preview
Preset: Custom
Amount: 200 %
Radius: 1.0 px
Reduce Noise: 0 %
Remove: Lens Blur
Shadows / Highlights
100%

02 The first step is to sharpen the image. Go to Filter > Sharpen > Smart Sharpen and set your Amount to about 200 per cent, Radius to 1px and click OK when you are ready to proceed.

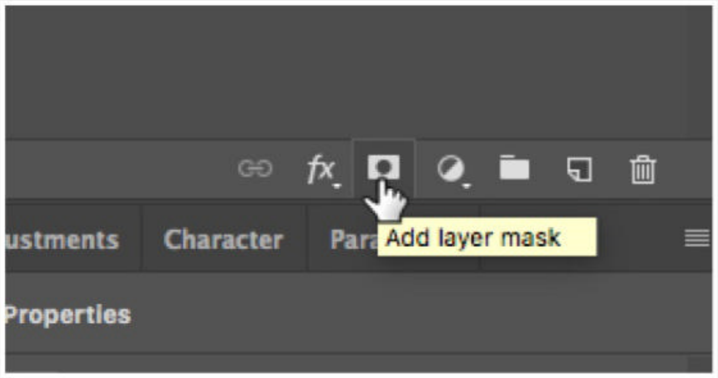

Lock:
Fill: 100%
blur
Background

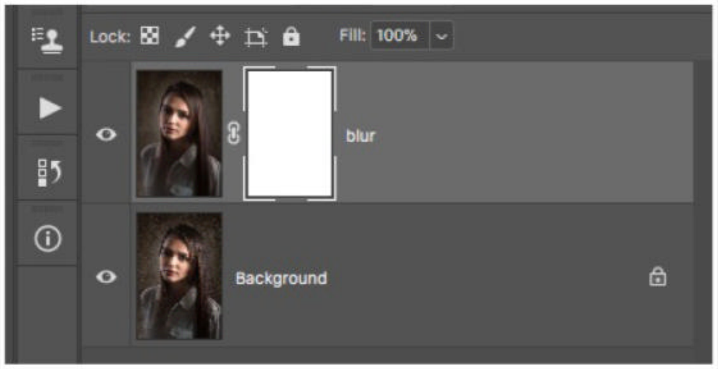

Filter 3D View Window Help
Smart Sharpen
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle...
Camera Raw Filter...
Lens Correction...
Liquify...
Vanishing Point...
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Nik Collection
Average
Blur
Blur More
Box Blur...
Gaussian Blur...
Lens Blur...
Motion Blur...
Radial Blur...
Shape Blur...
Smart Blur...
Surface Blur...



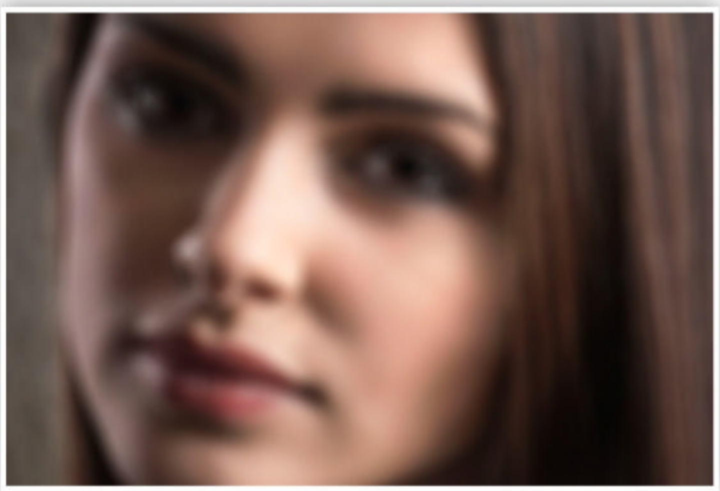
☑ Preview
● Faster ○ More Accurate
Depth Map
Source: None
Blur Focal Distance 0
☐ Invert
Iris
Shape: Hexagon (6)
Radius 60
Blade Curvature 0
Rotation 0
Specular Highlights
Brightness 0
Threshold 0
Noise
Amount 2
Distribution
● Uniform
○ Gaussian
☐ Monochromatic

03 Press Cmd + J to create a duplicate layer of this image and name it 'blur'. With the new layer active, go to Filter > Blur > Lens Blur and make your Radius 60 and Noise 2. Click OK and the blur will be applied.

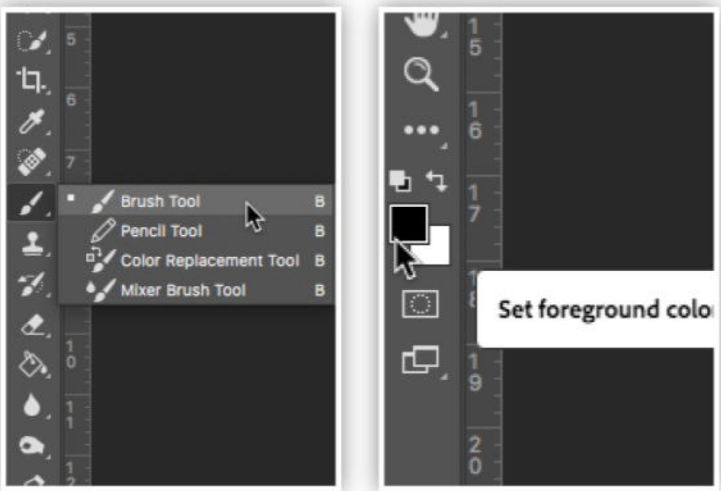

fx
ustments
Character
Para
Add layer mask
Properties


Lock:
Fill: 100%
blur
Background

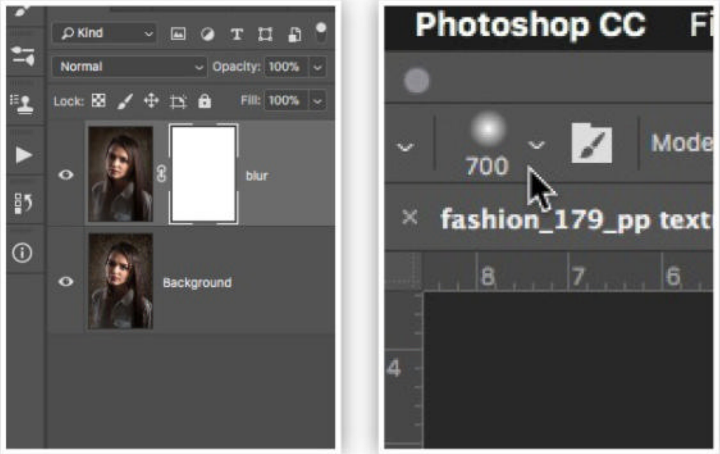
04 With the 'blur' layer active, Click on the Add Layer Mask button at the bottom of the layers palette. A layer mask will be added to the blurred portrait. We now want to combine both the blurred and sharp layers.



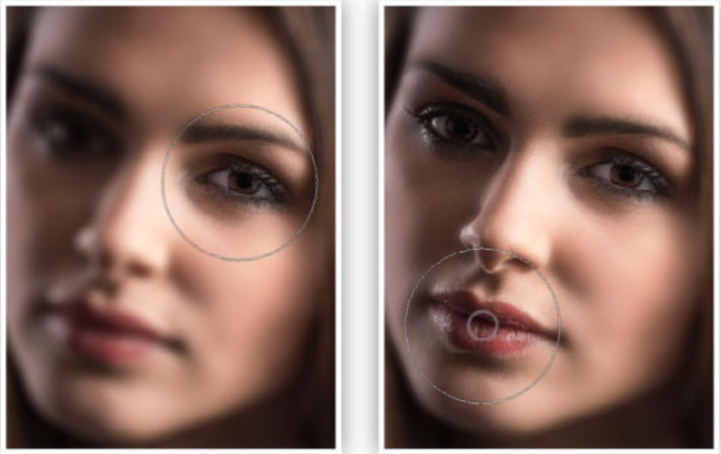
05 Wet plate photographs are characterised by their very shallow depth of field. Normally, just the eyes and some of the facial features are the only things in sharp focus. This is what we are trying to emulate.


Brush Tool B
Pencil Tool B
Color Replacement Tool B
Mixer Brush Tool B
Set foreground colo

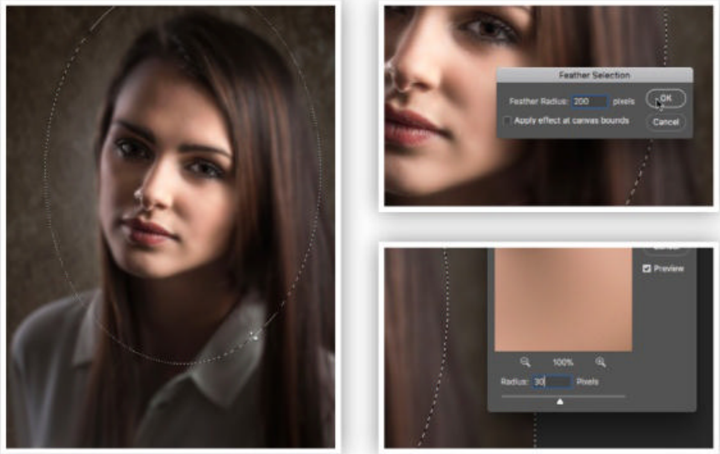
06 Go to your toolbar and select the Brush Tool. Make sure your foreground colour is set as black. You can press D to default the colours to black and white and press X to toggle which is the foreground colour.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
blur
Background
Photoshop CC
700
Mode
fashion_179_pp text

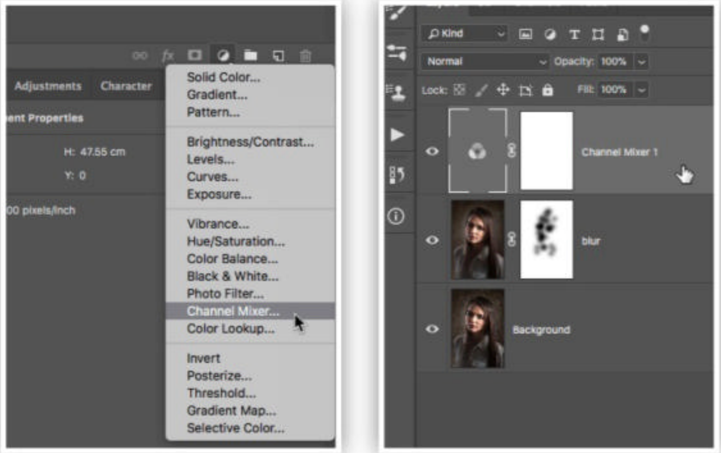
07 Click the 'blur' layer mask thumbnail to make it active and use a large, soft, black brush with its Opacity set at 50 per cent and begin painting in the eyes, nose and mouth of Courtney's face.



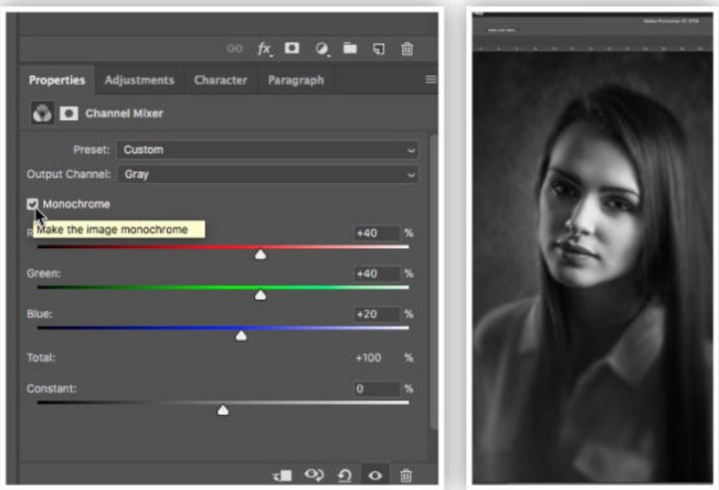
08 With each click of the brush, you will see more and more of the sharp layer below starting to show through. When you are done, you should have a shallow depth of field effect with just the eyes and the face in focus.


Feather Selection
Feather Radius: 200 pixels
Apply effect at canvas bounds
OK
Cancel
Preview
100%
Radius: 30 Pixels

09 You can make the top 'blur' image softer by putting an elliptical marquee (M) around the face, inverting the selection (Shift + Cmd + I), feathering the selection by about 200 pixels and then using Gaussian Blur with a Radius of about 20-30 pixels.

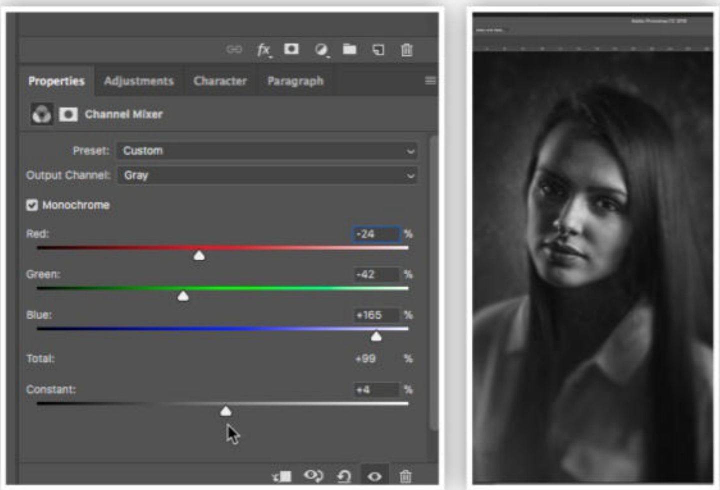

Adjustments
Character
Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...
Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
Channel Mixer 1
blur
Background

10 Next, click on the Adjustment Layer button and select Channel Mixer from the dropdown menu. Make sure the new Adjustment Layer is at the top of your layer stack. Click on it to make it active if it isn't already.


Properties
Adjustments
Character
Paragraph
Channel Mixer
Make the image monochrome

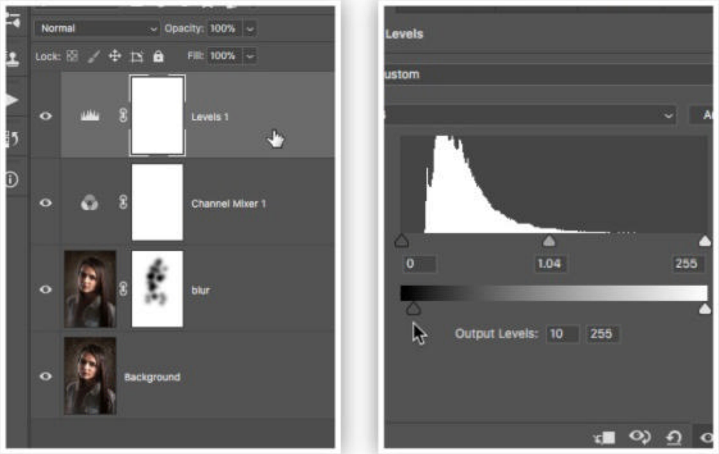
Preset: Custom
Output Channel: Gray
☑ Monochrome
Red: +40 %
Green: +40 %
Blue: +20 %
Total: +100 %
Constant: 0 %

11 From the Channel Mixer Properties panel, make sure the Monochrome button is checked. Now you need to adjust the Red, Green and Blue sliders to alter the image and give it a more authentic wet plate look.


Properties
Adjustments
Character
Paragraph
Channel Mixer

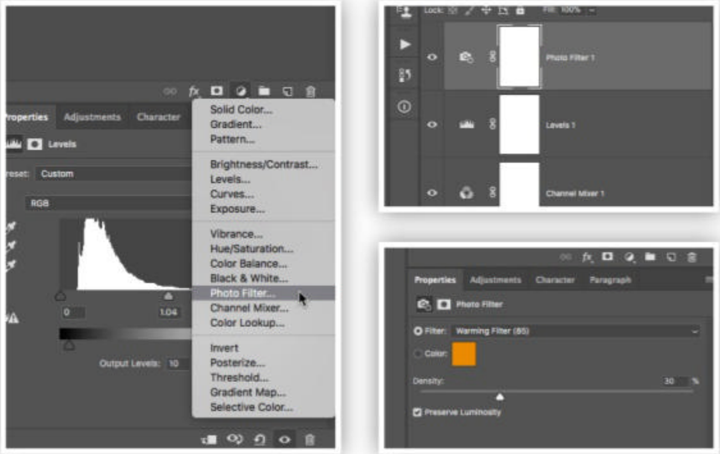
Preset: Custom
Output Channel: Gray
☑ Monochrome
Red: -24 %
Green: -42 %
Blue: +165 %
Total: +99 %
Constant: +4 %

12 This kind of portrait requires that the RGB sliders are adjusted in such a way to bring out texture in the skin. This image requires the sliders be set at Red -24 per cent, Green -42 per cent, Blue +166 per cent and Constant at +4 per cent.


Normal
Opacity: 100%
Lock:
Fill: 100%
Levels 1
Channel Mixer 1
blur
Background
Levels
ustom

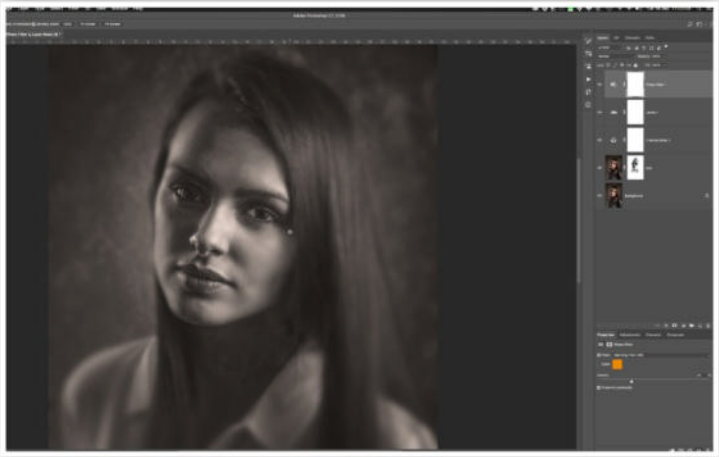
0 1.04 255
Output Levels: 10 255

13 Add a Levels Adjustment layer and adjust the Output Levels of Black to 10 and keep White at 255 to reduce overall contrast slightly, and brighten the darkest parts of the image by a small amount. Mid-tone and Highlight sliders can be tweaked too.

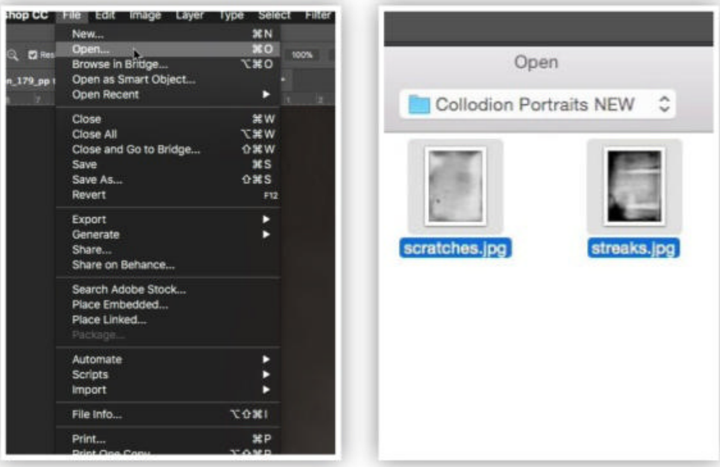

roperties
Adjustments
Character
Levels
Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...
Photo Filter 1
Levels 1
Channel Mixer 1
Properties
Adjustments
Character
Paragraph
Photo Filter

● Filter: Warming Filter (85)
○ Color:
Density: 30 %
☑ Preserve Luminosity

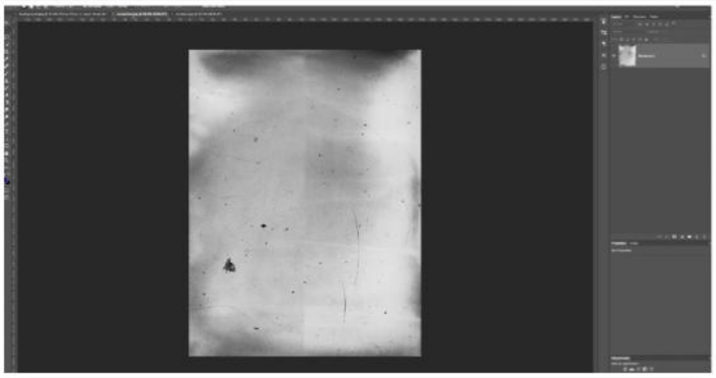
14 Now you can add a Photo Filter Adjustment Layer. Make the filter colour Warming (85) or Sepia. Make the Density about 30 per cent and make sure the Preserve Luminosity button is checked. This gives the image quite an antique feel.

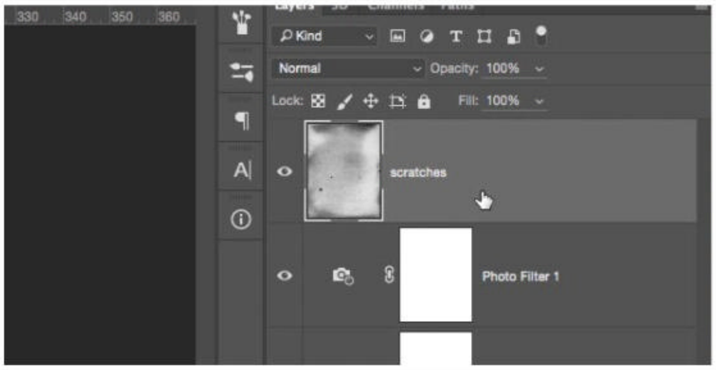


15 At the moment the image looks too new. We need to add some effects to give it a distressed feel. The old wet plate process also had an inherent amount of dust and scratches involved, which we can add next.


File
Edit
Image
Layer
Type
Select
Filter
New... ⌘N
Open... ⌘O
Browse in Bridge... ⌥⌘O
Open as Smart Object...
Open Recent
Close ⌘W
Close All ⌥⌘W
Close and Go to Bridge... ⇧⌘W
Save ⌘S
Save As... ⇧⌘S
Revert F12
Export
Generate
Share...
Share on Behance...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
File Info... ⌥⇧⌘I
Print... ⌘P
Open
Collodion Portraits NEW
scratches.jpg
streaks.jpg

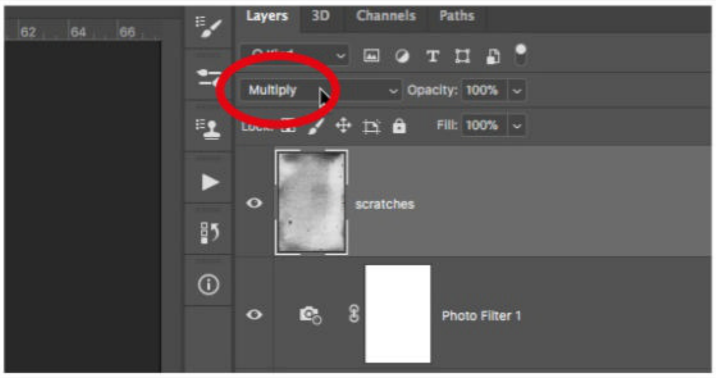
16 For this example, you can go to File > Open (Cmd + O) and browse for the location of a couple of images that can add the authentic distressed look. There are two examples here called ‘scratches’ and ‘streaks’. Select them both and click Open.



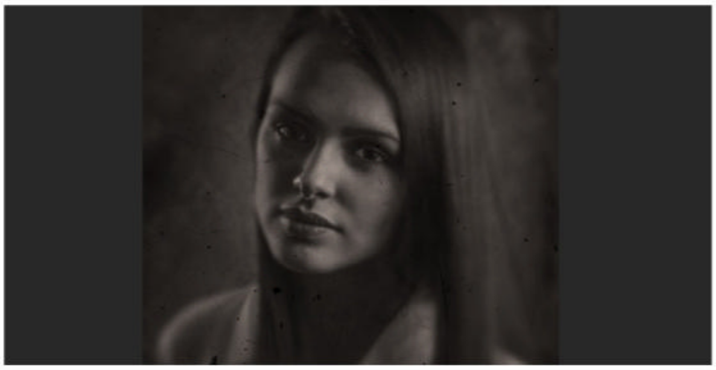


Normal Opacity: 100%
Fill: 100%
scratches
Photo Filter 1

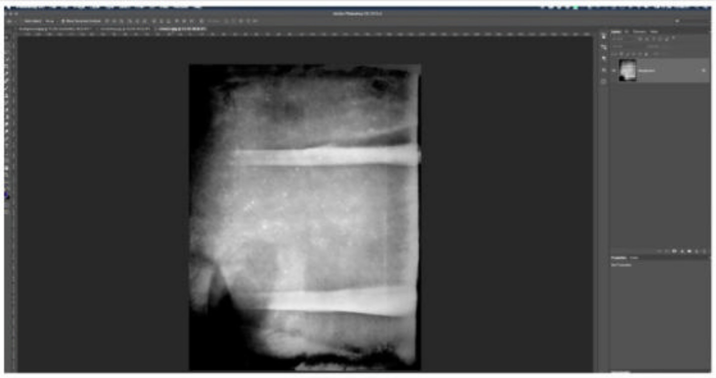
17 Start with the ‘scratches’ image. Press Cmd + A to select the image and then press Cmd + C to copy it to your clipboard. Click back on your document and press Cmd + V to paste it on a new layer which you can call ‘scratches’.

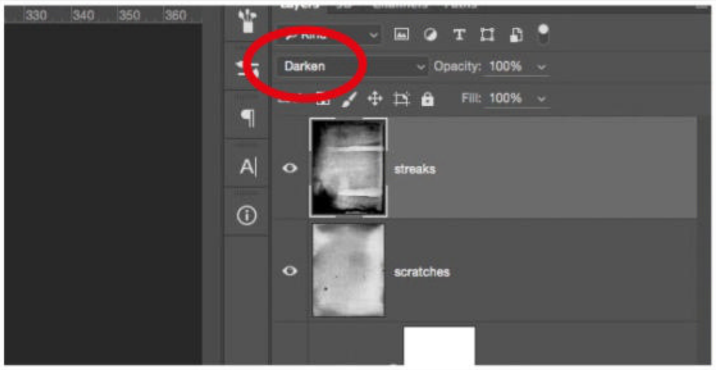


Multiply Opacity: 100%
Fill: 100%
scratches
Photo Filter 1



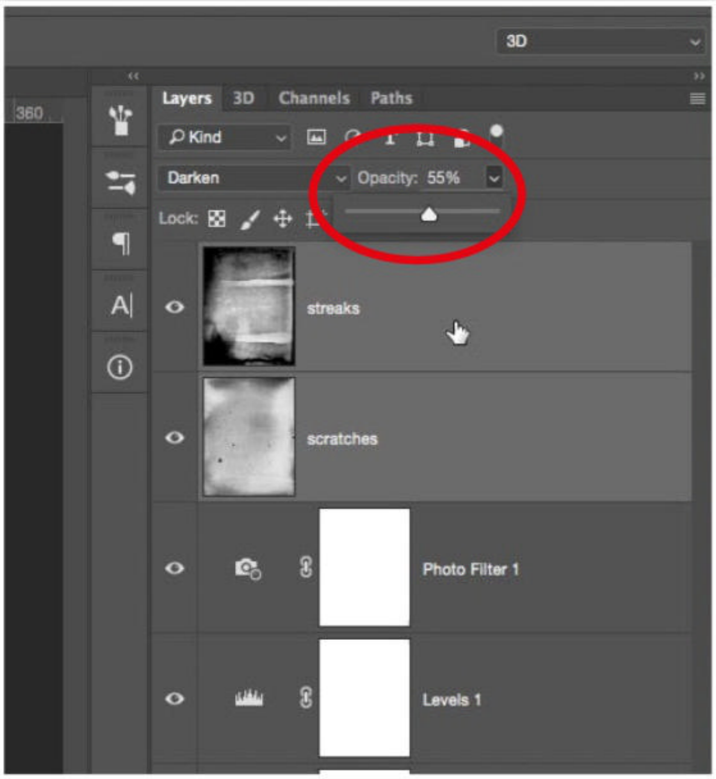
18 With the new ‘scratches’ layer active, go to the Blend Mode button and set this layer’s blend to Multiply. The ’scratches’ layer will now blend into the layers below giving a great antique feel to the image.





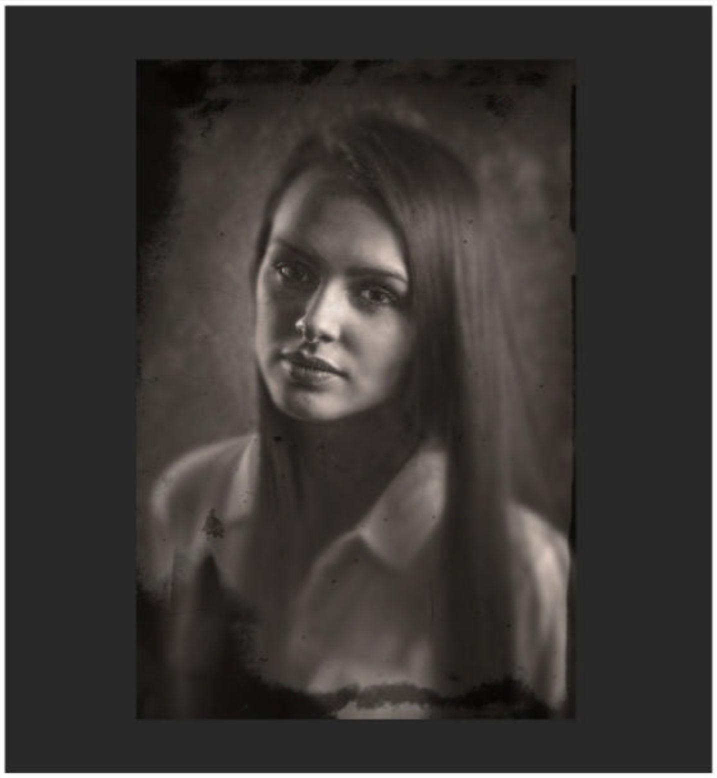
Darken Opacity: 100%
Fill: 100%
streaks
scratches

19 Go to the ’streaks’ image and copy and paste this one into your wet plate portrait document. This time, set the ’streaks’ layer Blend Mode to Darken.



Darken Opacity: 55%
streaks
scratches
Photo Filter 1
Levels 1

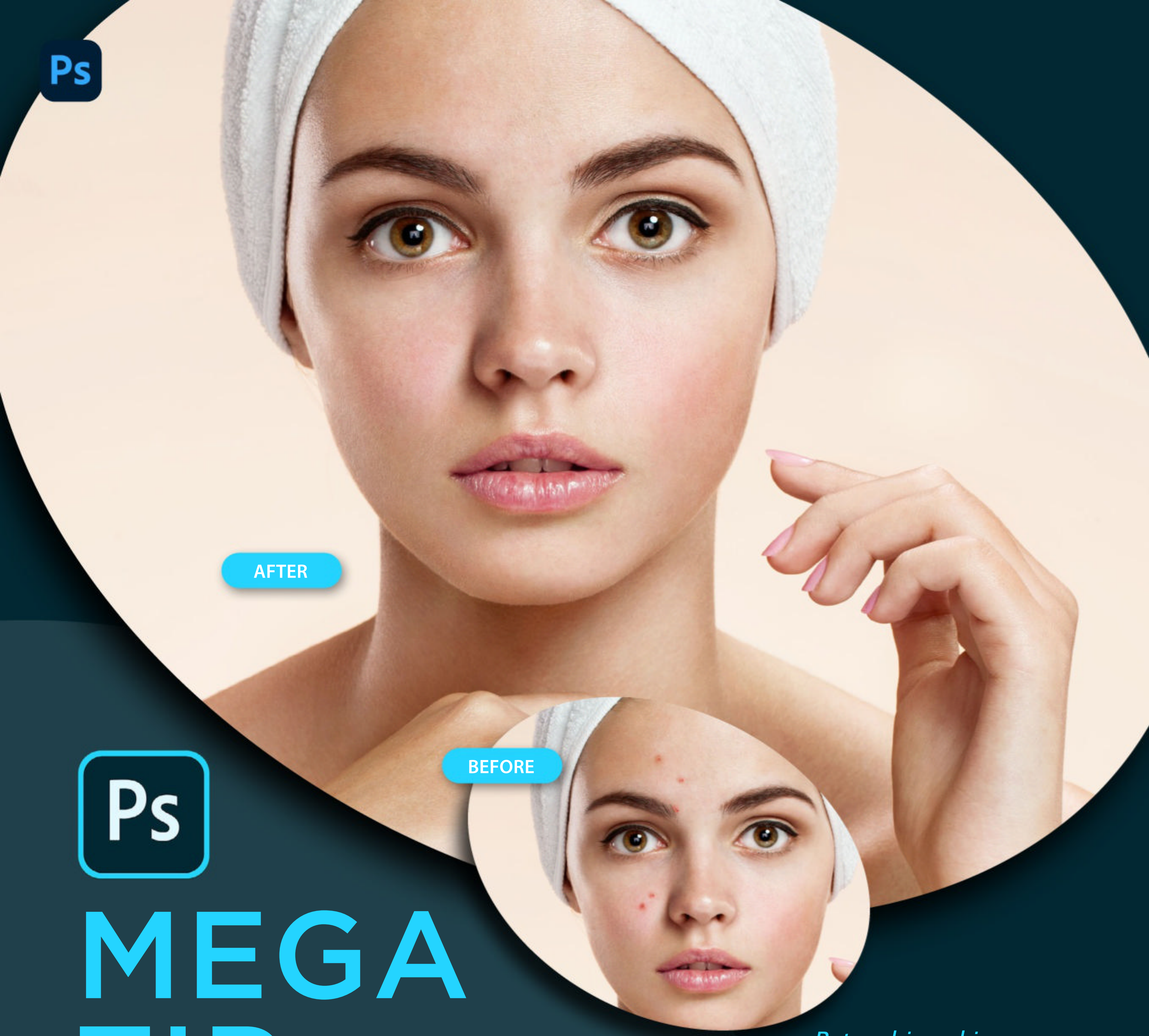
20 Finally, make the Opacity of both the ‘scratches’ and ’streaks’ layers about 55 per cent. This will ensure they don’t dominate the image too much but add to the overall effect of an old style wet plate image.



21 If you feel it needs it, you can add another Levels Adjustment to brighten the image. There is your final image. A classic photographic process has been given a modern digital update.

Create eye-catching portraits

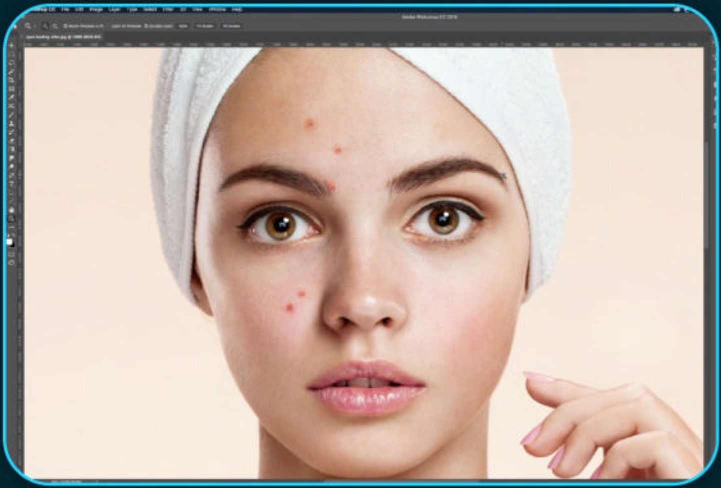
A classic look achieved with digital techniques.

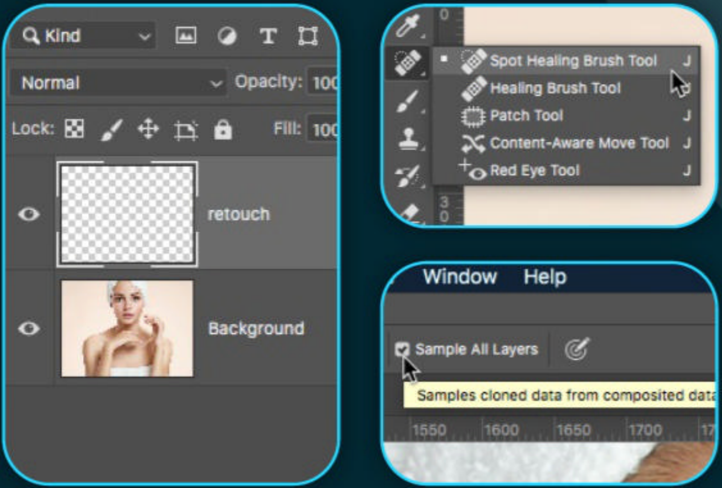


MEGA TIP

Improve Your Spot Healing

Retouching skin effectively can be a challenge. Photoshop's Spot Healing Tool is very effective at removing blemishes, but it can still introduce more issues than it eradicates. Here is a way of ensuring better results.



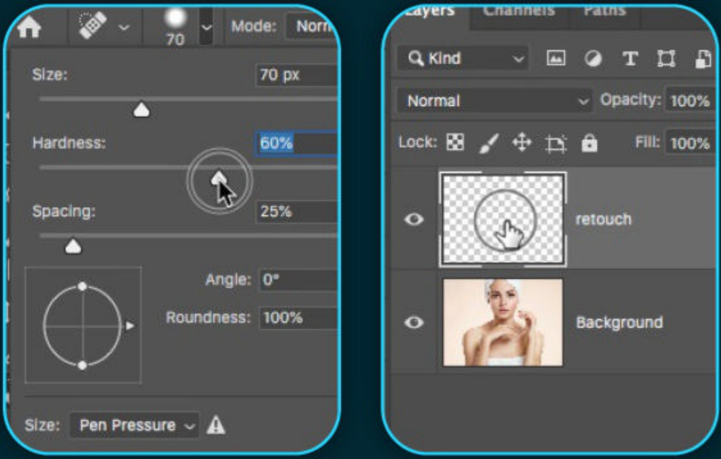

Kind
Lock:
retouch
Background
Spot Healing Brush Tool J
Healing Brush Tool J
Patch Tool J
Content-Aware Move Tool J
Red Eye Tool J
Window
Help
Samples cloned data from composited data
1550
1600
1650
1700

Normal
Opacity: 100
Fill: 100

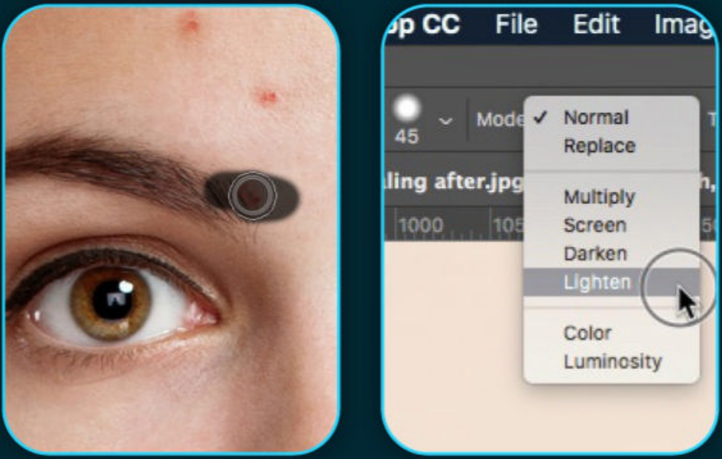
☑ Sample All Layers

01 We have an example image of a teenager with some acne on her face. We want to be able to remove the blemishes without having too many obvious indications that retouching has been used. Because there are many areas of clean, natural-looking skin, the Spot Healing Tool is a good choice here.

02 For non-destructive retouching, create a new layer above the main image and name it 'retouch'. Any work done will appear on this layer. Choose the Spot Healing Tool from the toolbar and use a medium hardness brush of about 70 pixels. Make sure the Sample All Layers box is checked.


70
Layers
Channels
Paths
Kind
Lock:
retouch
Background

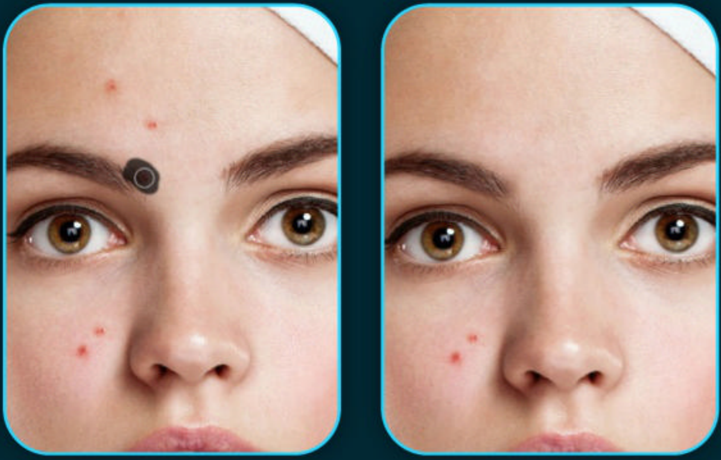
Mode: Norm
Size: 70 px
Hardness: 60%
Spacing: 25%
Angle: 0°
Roundness: 100%
Size: Pen Pressure
Normal
Opacity: 100%
Fill: 100%

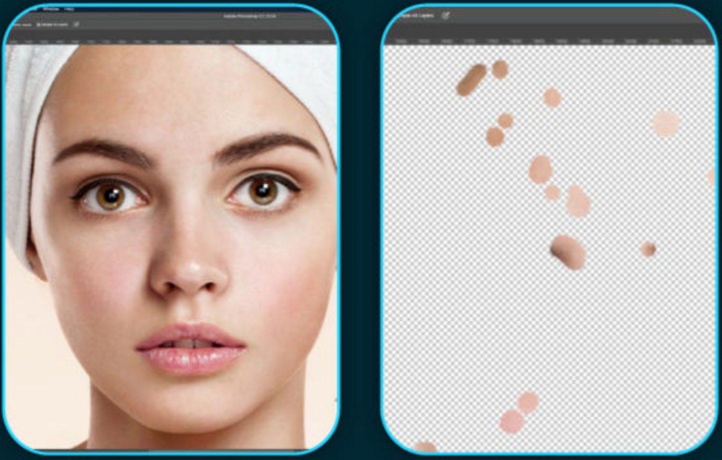

op CC
File
Edit
Imag
45
ling after.jpg
1000
Normal
Replace
Multiply
Screen
Darken
Lighten
Color
Luminosity

Mode ✓ Normal

03 Make sure the new 'retouch' layer is active. This way, any cloned pixels will be added to the 'retouch' layer only, preserving the original image underneath. Since you have checked Sample All Layers, pixel data from the main image will still be incorporated on the new layer.

04 As you start brushing over the blemishes by her eyebrow, the results may very well look mottled and the healing process may remove parts of the brow. Alternatively, if you go to the options menu in the top left of the screen and choose Lighten, from the Mode panel, you can be more precise with your healing.





05 If you undo what you've done and try the tool, with the Lighten Mode now active, you should see that the darker blemishes are removed, but more of the hair detail is left intact. In this case, the Lighten Mode targets the darker pixels of the blemish, not the lighter pixels of the hair.

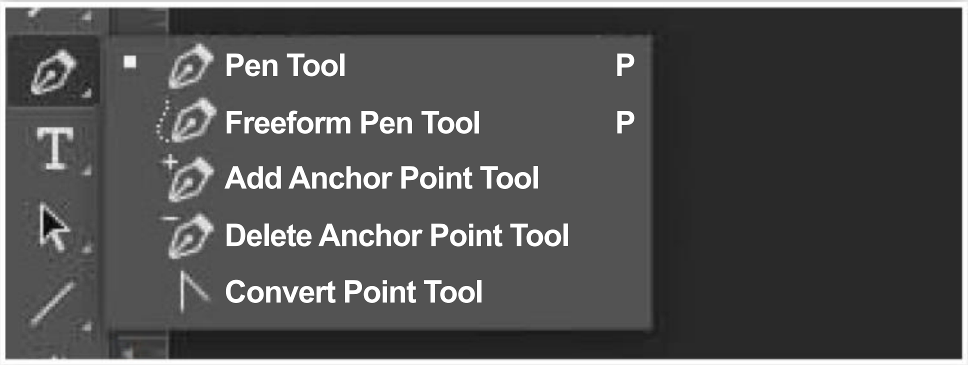
06 You can now continue to target the darker blemish pixels around the face. If you view the 'retouch' layer on its own, you can see that you have cloned new pixel data on this layer, preserving the original image underneath with a non-destructive edit.

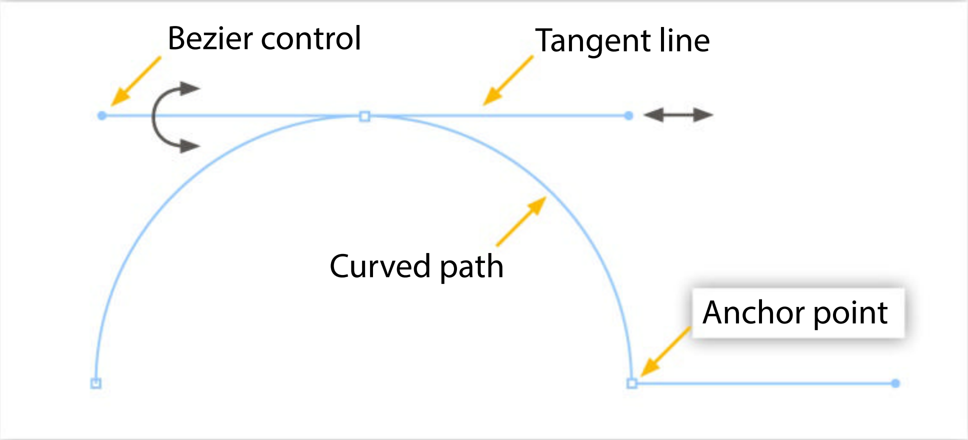
Enhance Your Photoshop Editing Skills

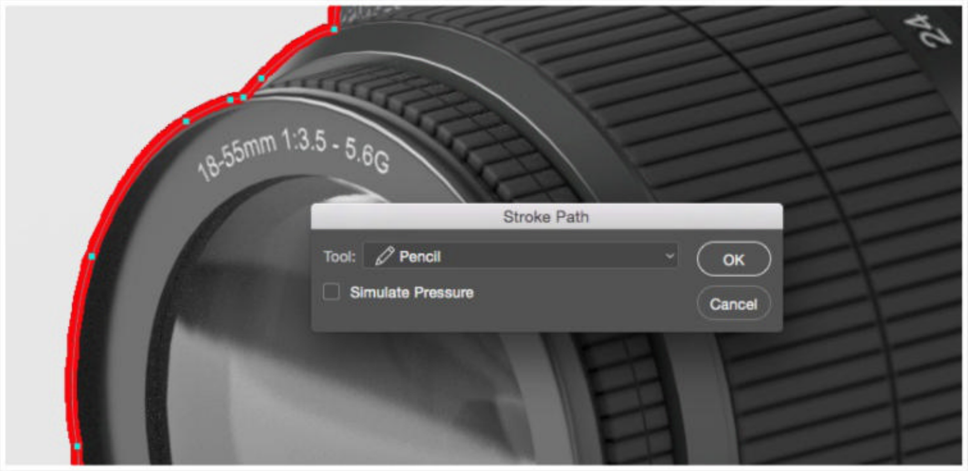
Photoshop can make your images look amazing. It is used by graphic designers, digital artists and photographers the world over. The only choice you have to make is deciding what tools are best for the kind of editing you want to do. This section adds a few more strings to your bow, ready for you to take on any creative challenge.

The Pen Tool and Paths

Draw smooth curved paths with the versatile Pen tool







Stroke Path

Tool: Pencil

☐ Simulate Pressure

OK

Cancel

The quickest and most common way to make selections is to use the Polygonal Lasso tool but since that only draws straight lines from point to point it isn't ideal for making accurate selections around curved edges. Photoshop does have an extremely useful tool for making smooth curves though, and it's called the Pen tool (keyboard shortcut P).

Rather than creating a selection directly like the Lasso tool, the Pen tool is used to create a Work Path. A Work Path in Photoshop is a vector graphic outline which can be used for several functions, including shaped text, outline strokes and of course selections. A path consists of straight and curved lines segments connected with points. You can leave a path open to form a straight or curved line, or close a path to form a shape.

Paths are independent of any particular layer, so you can use the same path to create shapes on more than one layer of an image, and you can copy a path from one image to another.

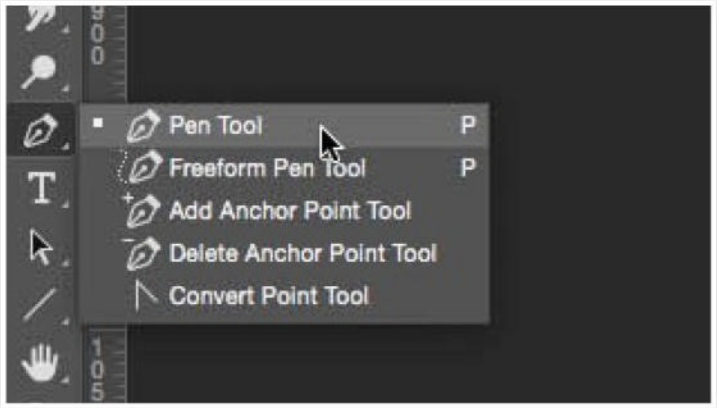
Using the Pen tool and Paths effectively is a complicated process that takes a lot of practice to master, but it's worth the effort, because once you crack it you'll be able to make smooth curves and selections around almost any shape. If you want to use Photoshop in a professional capacity it's an essential skill to learn.

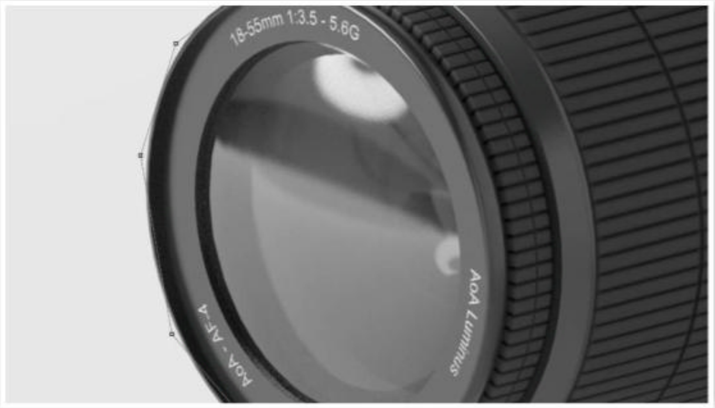
USEFUL TIP

If you need to repeat the same selection on multiple layers, save your selection as part of the image. You can then load it in again to save repeating work.

Using the Pen Tool

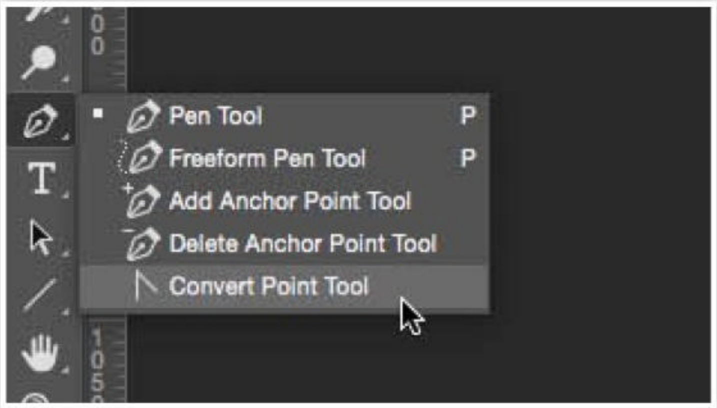
Using the Pen tool effectively takes some practice and a lot of patience. Here's the low-down on how it works.

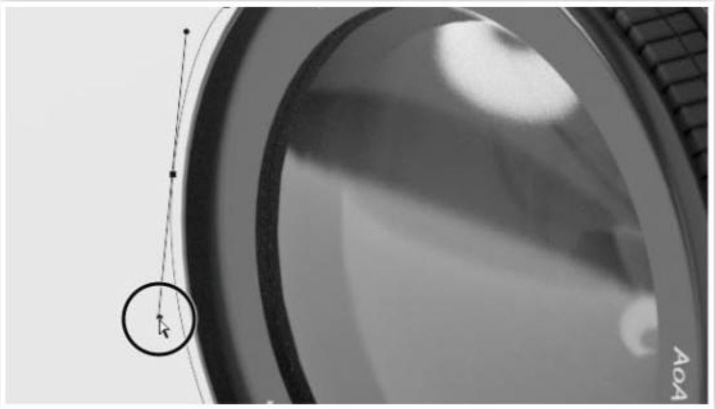

Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool


18-55mm 1:3.5 - 5.6G
AoA Luminus
AoA - AF-4

01 The Pen tool works by using anchor points connected by lines. Unlike the Brush Tools which paint pixels, the Pen Tool creates vector-based shapes. To draw a curved line, first select the Pen tool from the Tool Palette.

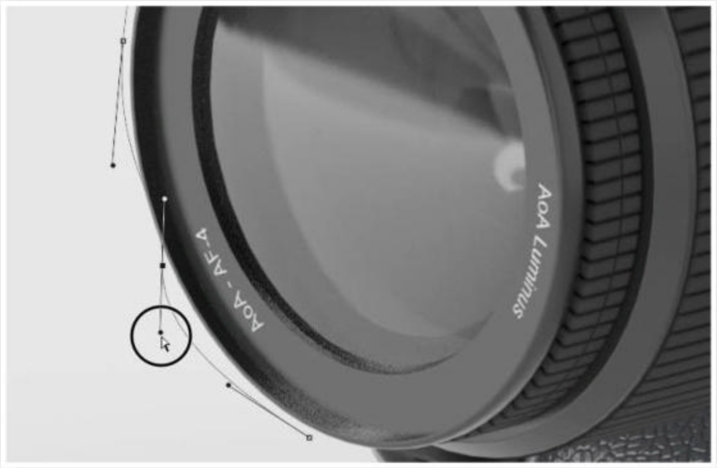
02 Click with the pen tool at three or four points on the line you wish to draw; these are called anchor points, and you'll see that there are straight lines connecting them.

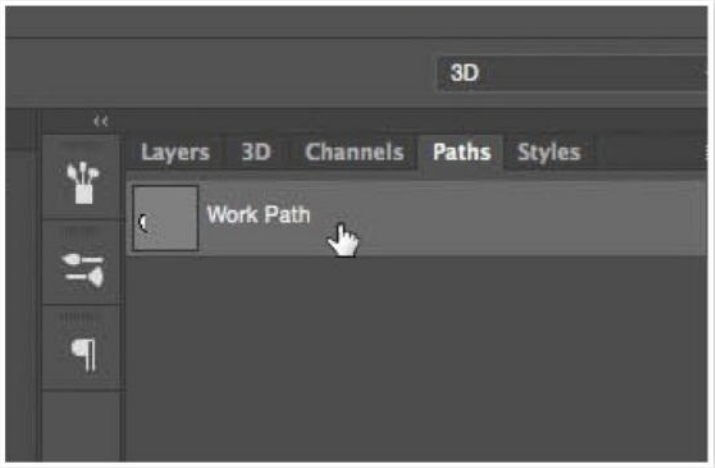

Pen Tool P
Freeform Pen Tool P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool



03 Next, click and hold on the Pen tool icon, and select the Convert Point tool. You use this to manipulate the anchor points and control the curvature of the line.

04 Click and hold on any of your anchor points, and drag away from the point. You should see two lines with handles on the ends extrude from the anchor point. This is called a tangent line.


AoA - AF-4
AoA Luminus


3D
Layers
3D
Channels
Paths
Styles
Work Path

05 If you move the cursor around you'll see the line linking your anchor points flex and bend. You can use this to bend the line to match the curvature of the edge you're trying to follow.

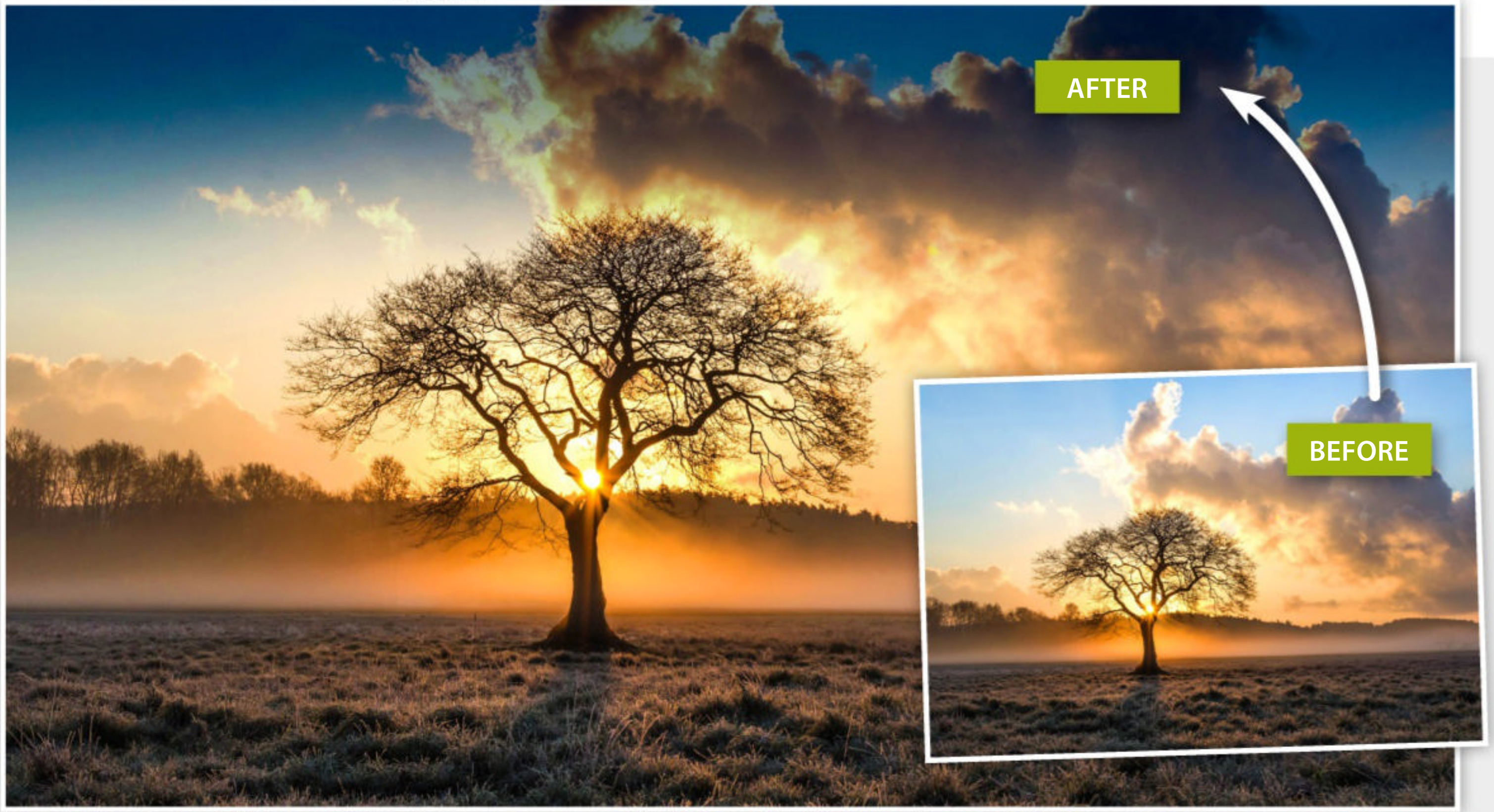
06 With practice and patience you can bend a curved line around even quite complex shapes. If you open the Paths palette you'll see the work path you've created appear in the list.

Adding a Graduated Filter

Graduated filters can improve photos by adding depth and colour to the sky

Photographers use graduated filters placed in front of the camera lens to selectively change the exposure and sometimes the colour of part of a picture, usually to darken the sky to bring out details in the clouds and balance the exposure with the landscape in the foreground. They come in many different shapes, sizes and colours to fit all types of camera system.

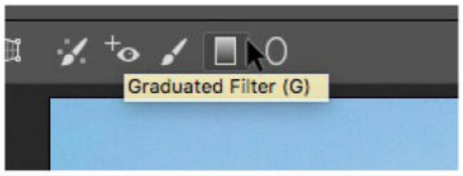
As with most photographic techniques, it's possible to duplicate the effect of graduated filters using Adobe Photoshop and as usual there are several ways to accomplish this. For this example we'll use a landscape photo of a sunrise over a field.



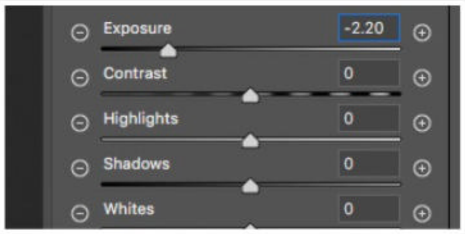
Graduated Filter in Camera Raw

Since this photo was taken using Raw mode, we can use the Graduated Filter tool in Adobe Camera Raw (ACR). ACR is the Raw processing application supplied with each version of Photoshop and allows you to add the effect during processing. This is by far the best way to do it, since it preserves the maximum amount of detail in the photograph.

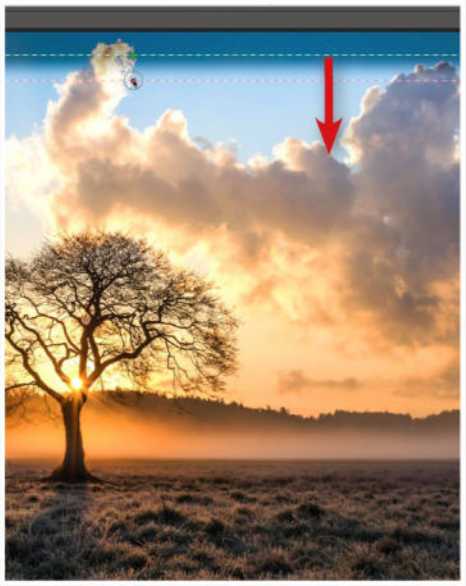
01 When you open the image in Adobe Camera Raw, you'll see a row of tool icons across the top of the main image window. The Graduated Filter icon is to the right.



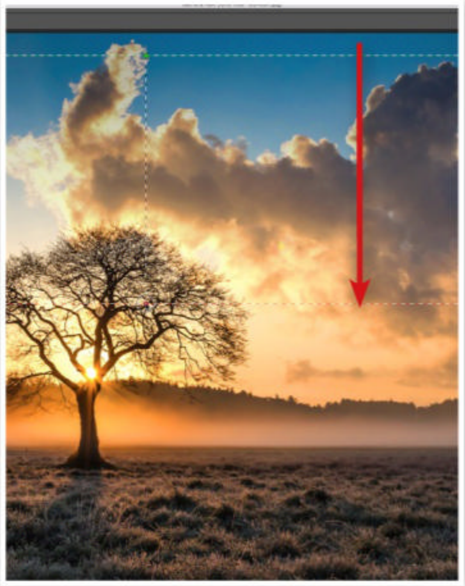
02 When you click on the Graduated Filter icon, you'll see the control panel on the right of the screen change. The filter can apply many different effects, but the one we want to use is a reduction in exposure. A setting between -2.00 and -2.70 should produce a suitable effect for this picture.


Exposure -2.20
Contrast 0
Highlights 0
Shadows 0
Whites 0

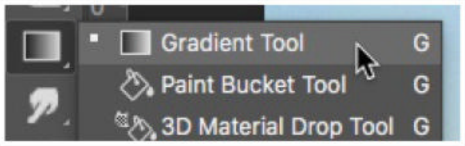
03 To apply the filter, drag a line down from the top of the screen to the horizon line. You'll see a horizontal and vertical dotted line like an inverted T. You'll also notice that you can change the angle of the line by moving the cursor left and right. To constrain the line to the vertical, hold down the Shift key while dragging.

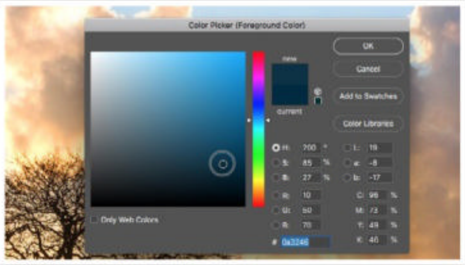


04 The red dotted line marks the lower, least saturated edge of the gradient effect, but there is also a green line at the top of the frame. This marks the top or most saturated edge of the effect, with a smooth gradient between the two lines. If you drag this green line down, more of the image will be at maximum effect and the gradient will be shorter.

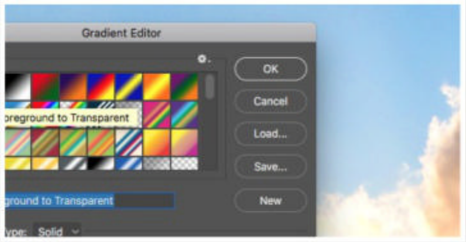


Graduated Filter in Photoshop

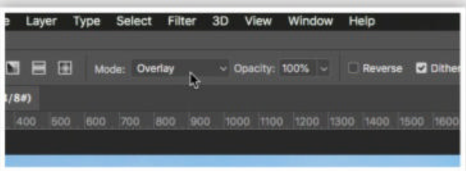




01 If your photo wasn't taken in Raw mode, you can apply a graduated filter using the Gradient Tool. To set up the graduated filter, first select the Gradient Tool, then set the foreground colour to dark blue by clicking on the foreground square and then using the colour picker.

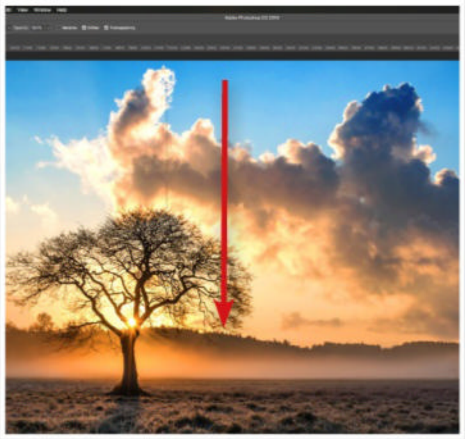


ground to Transparent
ype: Solid



Mode: Overlay Opacity: 100% ☐ Reverse ☑ Dithe

02 Next, in the tool options bar, click on the gradient editor and select Foreground to Transparent, click on the button for Linear Gradient, set the Blending mode to Overlay and the Opacity to 100 percent. Make sure the boxes for Dither and Transparency are checked.



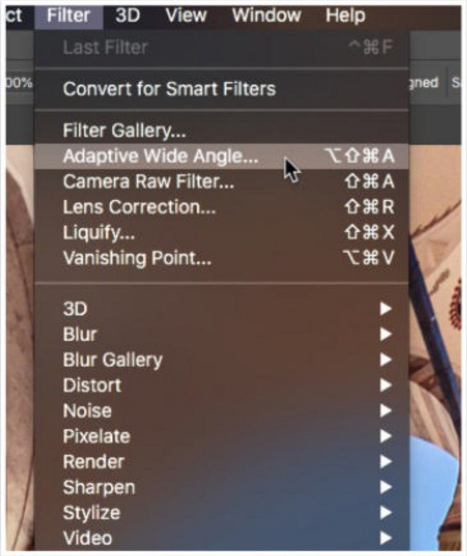
03 To apply the gradient to the picture, start at the top of the frame and then click and drag down to the horizon line. If you hold down the shift key it will constrain the line to the vertical. The blue is blended into the sky making it darker. It's always a good idea to tailor the blend colour to match the sky. Apply again if you want it darker.

Correcting Lens Distortion

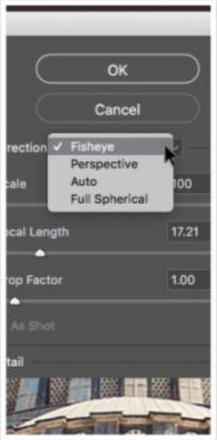
Correct the optical distortion of ultra-wide lenses with Photoshop's Adaptive Wide Angle

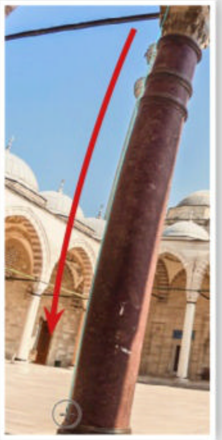
CANON FISHEYE ZOOM LENS EF 8-15mm 1:4 L USM
8-15mm
ULTRASONIC
Canon
AF MF

One of the new features introduced with Photoshop CS6 is called Adaptive Wide Angle; this can warp and bend an image to undo the optical distortion common to all very wide angle lenses. We've all seen photographs taken with "fish-eye" lenses. These lenses are called ultra-wide-angle, because the angle of view that they can capture can be as much as 180 degrees. Naturally the ability to squeeze half a room into the same shot comes at a price and that is extreme optical distortion. Straight and parallel lines appear to be bent, perspective is massively shortened and familiar objects take on almost unrecognisable proportions. In the photo opposite, the straight uprights of the pillars and floor seem to curve strangely, everything appears to bulge outwards and the whole effect is certainly quite disconcerting.

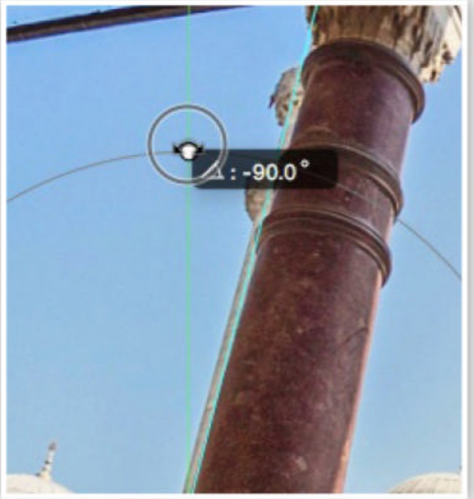

Filter
3D
View
Window
Help
Last Filter ^⌘F
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video

01 Adaptive Wide Angle attempts to correct at least some of these problems and can warp the picture to undo most of the optical distortion. Remarkably it can do all this while still preserving most of the detail in the picture. You'll find Adaptive Wide Angle in the Filters menu.

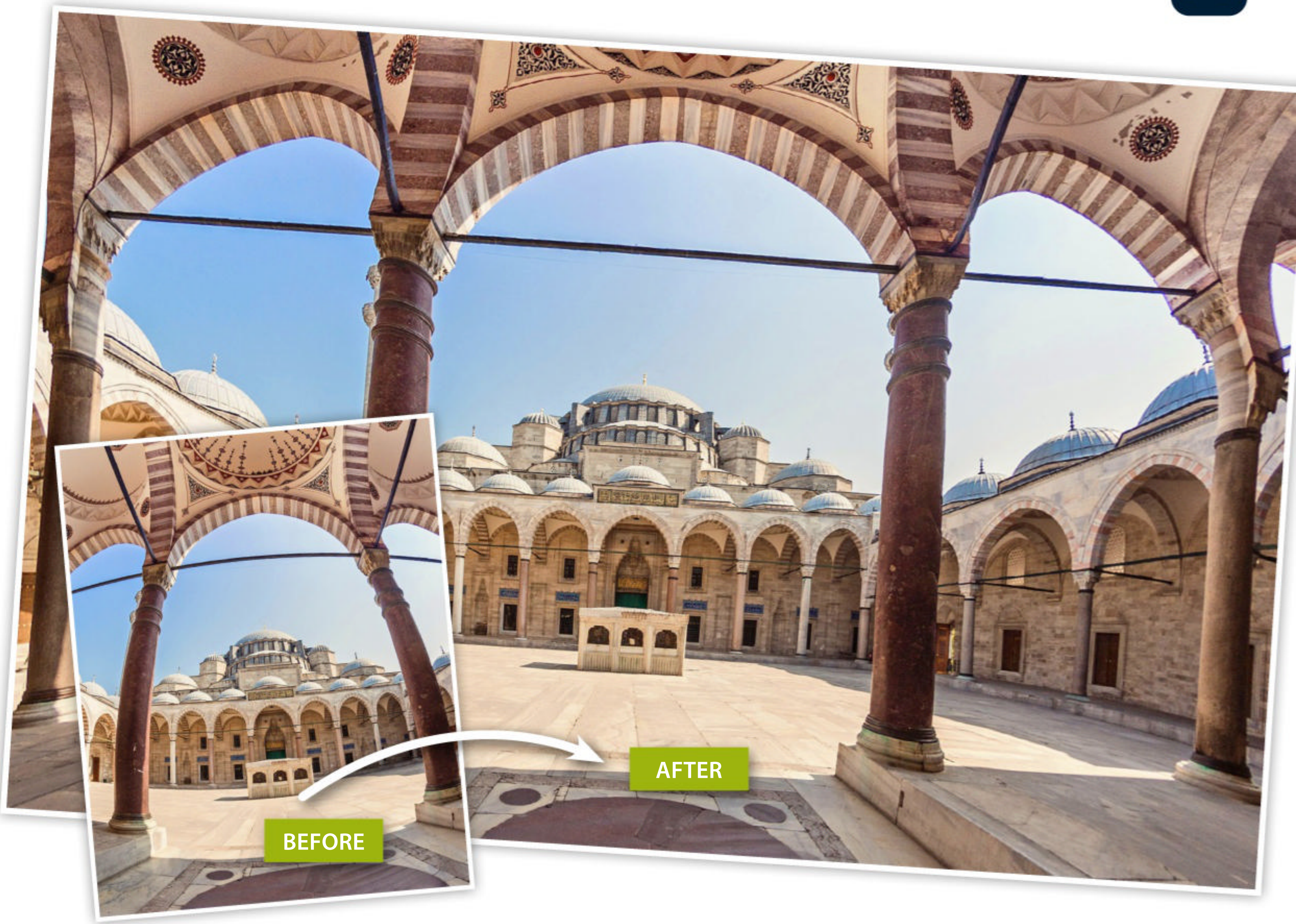

OK
Cancel
rection ✓ Fisheye
Perspective
Auto
Full Spherical
cale
100
cal Length
17.21
op Factor
1.00
As Shot
tail

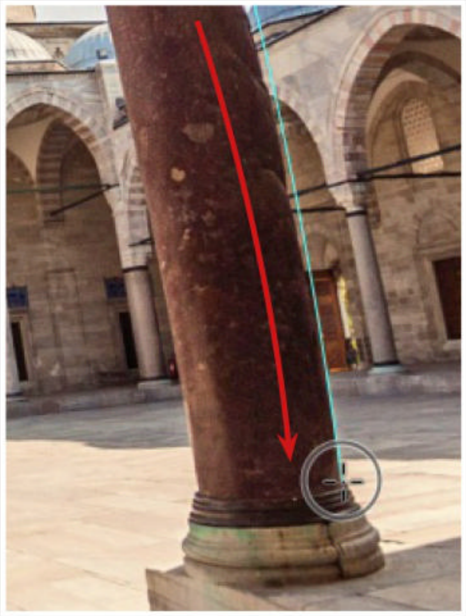


02 In the Adaptive Wide Angle interface, first select the Constraint Tool from the panel on the upper left of the main screen and select Fisheye from the Correction drop-down menu. Pick one of the vertical lines, in this case the pillars in the foreground, click near the top of it and drag a line down the length of it. You should find that the line will automatically curve to follow the line, but you can drag the control handle in the mid-point of the line to match it up to the curvature.

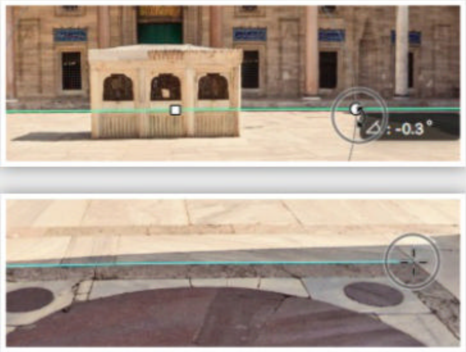


03 The line will automatically warp the picture to make the curved line straight. You'll see that there is a circle overlaid on the line, with two more control handles where they intersect. You can drag these handles, rotating the line to bring it into a vertical position. If you hold down the shift key it will automatically snap to vertical right away.

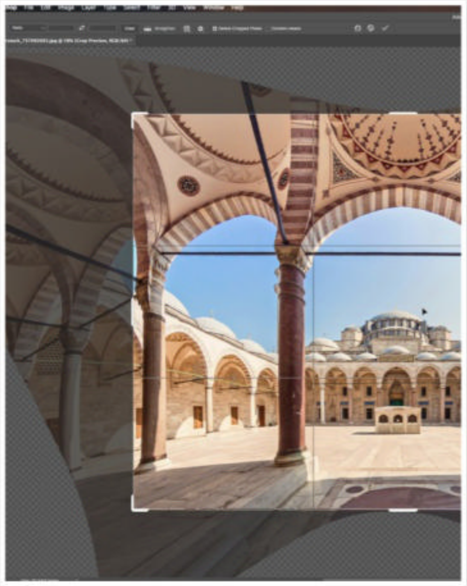




04 Pick a line on the opposite side of the picture and repeat the process by dragging a line down the uprights of the pillars ranged on the right of the image. This too will automatically straighten up the line.



05 Again, drag the handle on the circular line to move the upright into a vertical position. If you've done it right the vertical curvature distortion of the image should now be looking better. You may notice that the correction isn't quite perfect; there may still be some slight curvature of the various uprights and horizontals, but it's certainly a great improvement and the vertical structures are much straighter. You can carry on and try to correct more of the curvature, but be aware of how much warping is being applied to the image to straighten everything out. Click OK when you're done to finalise the correction.

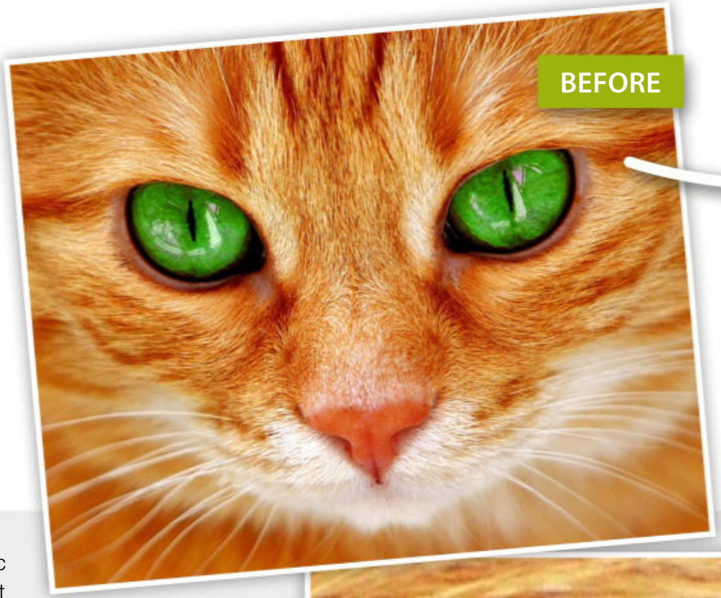


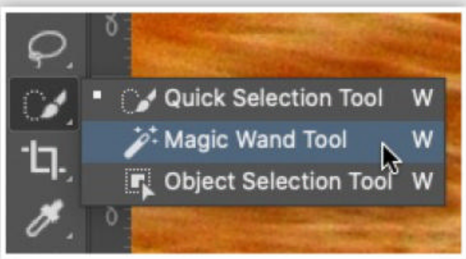
06 The process will have left some empty spaces at the edges of the image, so it will be necessary to crop the image to remove these. This does mean losing some of the original photograph, but the result is much less distorted than it was at the start.

Colour Replacement

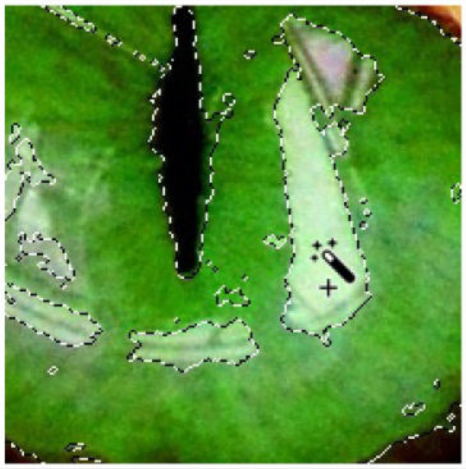
Swapping one colour for another

One relatively simple operation that you can do in Photoshop is to replace one colour with another. By using some of the selection tools we looked at earlier, along with the Hue/Saturation controls, we can change the colour of individual objects in our photos, such as replacing the colour of the cat's green eyes in this shot.

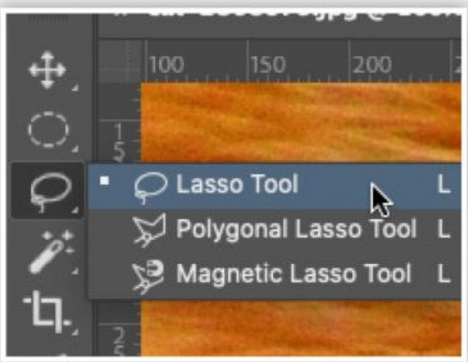




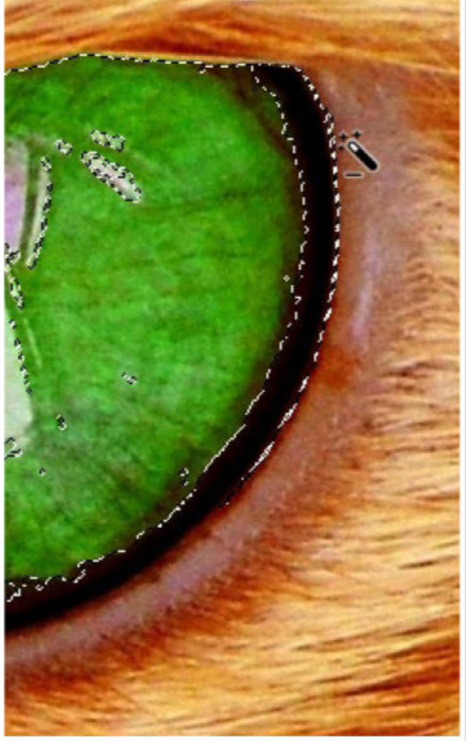
01 Selecting large areas of the same colour is one of those few occasions where the Magic Wand tool is actually useful, so we'll use it as a starting point here. With a tolerance setting of 40-50 it should be able to pick out the items without too much trouble.



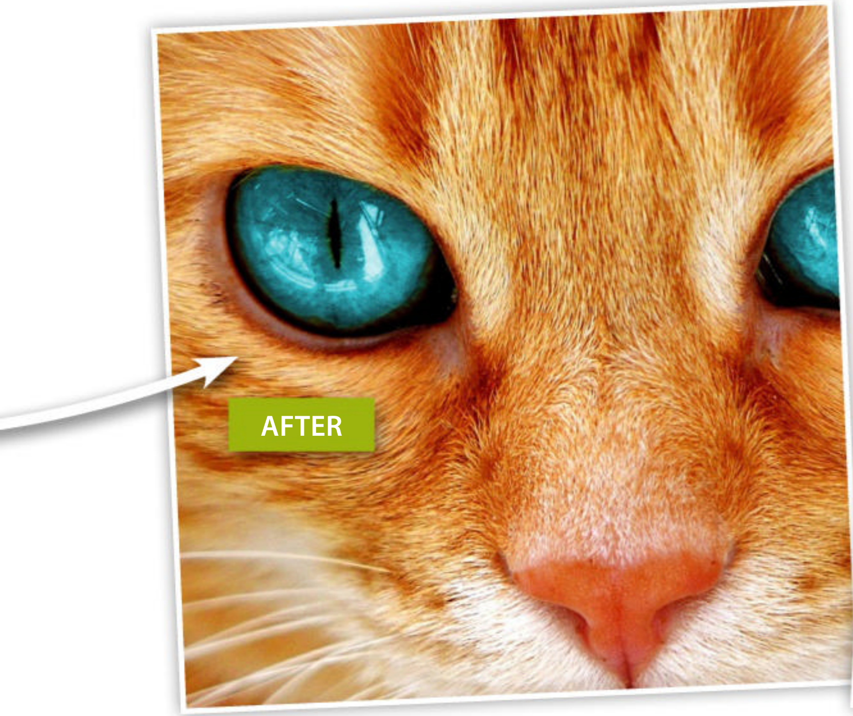
02 With the Magic Wand, it's best to add a bit at a time. Click on an area that's a mid-tone for the total area you want to select, and you'll find that the wand tool will select an area around it. The size of the selection will depend on the tolerance setting. By holding down the Shift key and carefully clicking on areas around your starting selection, you can add more areas. If the wand selects any wrong areas, you can use Cmd+Z to undo that step, and try again more carefully, possibly adjusting the tolerance downwards if it keeps happening.

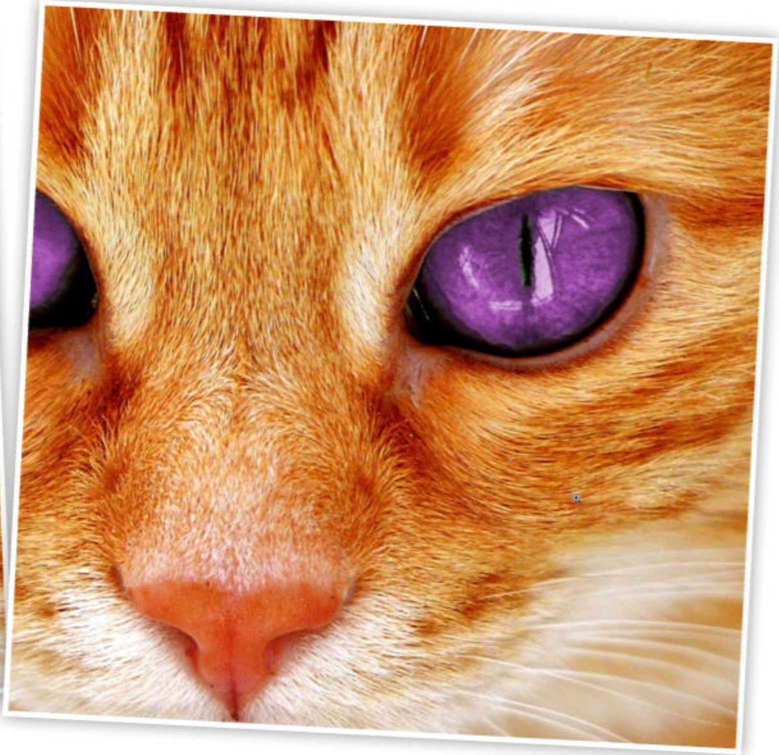


03 When you've reached the limit of what you can usefully select using the Magic Wand tool, you can finish your selection using the Lasso tool. By setting the Feather to zero you can produce a sharp-edged selection. Alternatively, use the Selection Brush tool.



04 Again hold down the Shift key to add more areas to your selection. If you need to remove any areas from the selection, such as the dark edges of the eyes, you can subtract by holding down the Alt key and going around them with the Lasso.





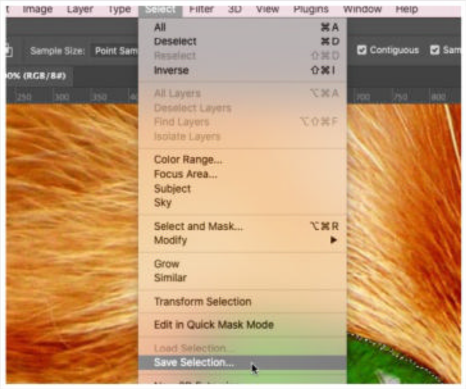


Image
Layer
Type
Select
Filter
3D
View
Plugins
Window
Help
Sample Size: Point Sam
Contiguous
All
Deselect
Reselect
Inverse
All Layers
Deselect Layers
Find Layers
Isolate Layers
Color Range...
Focus Area...
Subject
Sky
Select and Mask...
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Load Selection...
Save Selection...

05 When you've selected all the bits you want to repaint, you can save the selection for later use, to save you doing all that work again if you change your mind.

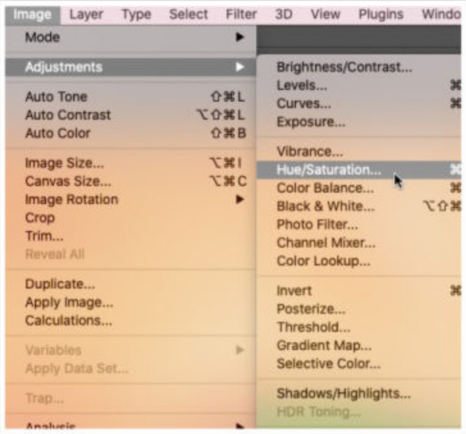
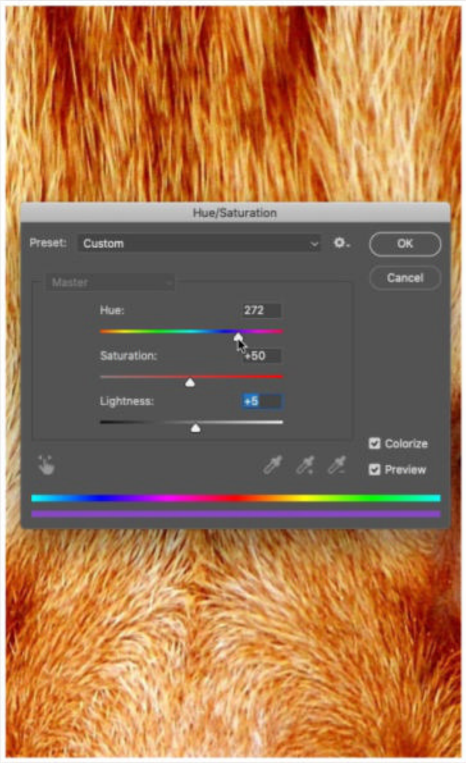


Image
Layer
Type
Select
Filter
3D
View
Plugins
Windo
Mode
Adjustments
Auto Tone
Auto Contrast
Auto Color
Image Size...
Canvas Size...
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Apply Data Set...
Trap...
Analysis
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...
Shadows/Highlights...
HDR Toning...

06 Although there are several filters we could use at this point, the most versatile way to change the colour of the selected area is the Hue/Saturation/Lightness option. This is common to most editing programs. In Elements you'll find it in the Enhance menu.


Hue/Saturation
OK
Cancel
Master

Preset: Custom

Hue: 272

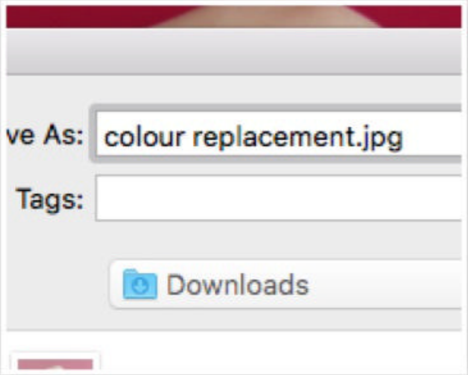
Saturation: +50

Lightness: +5

☑ Colorize

☑ Preview

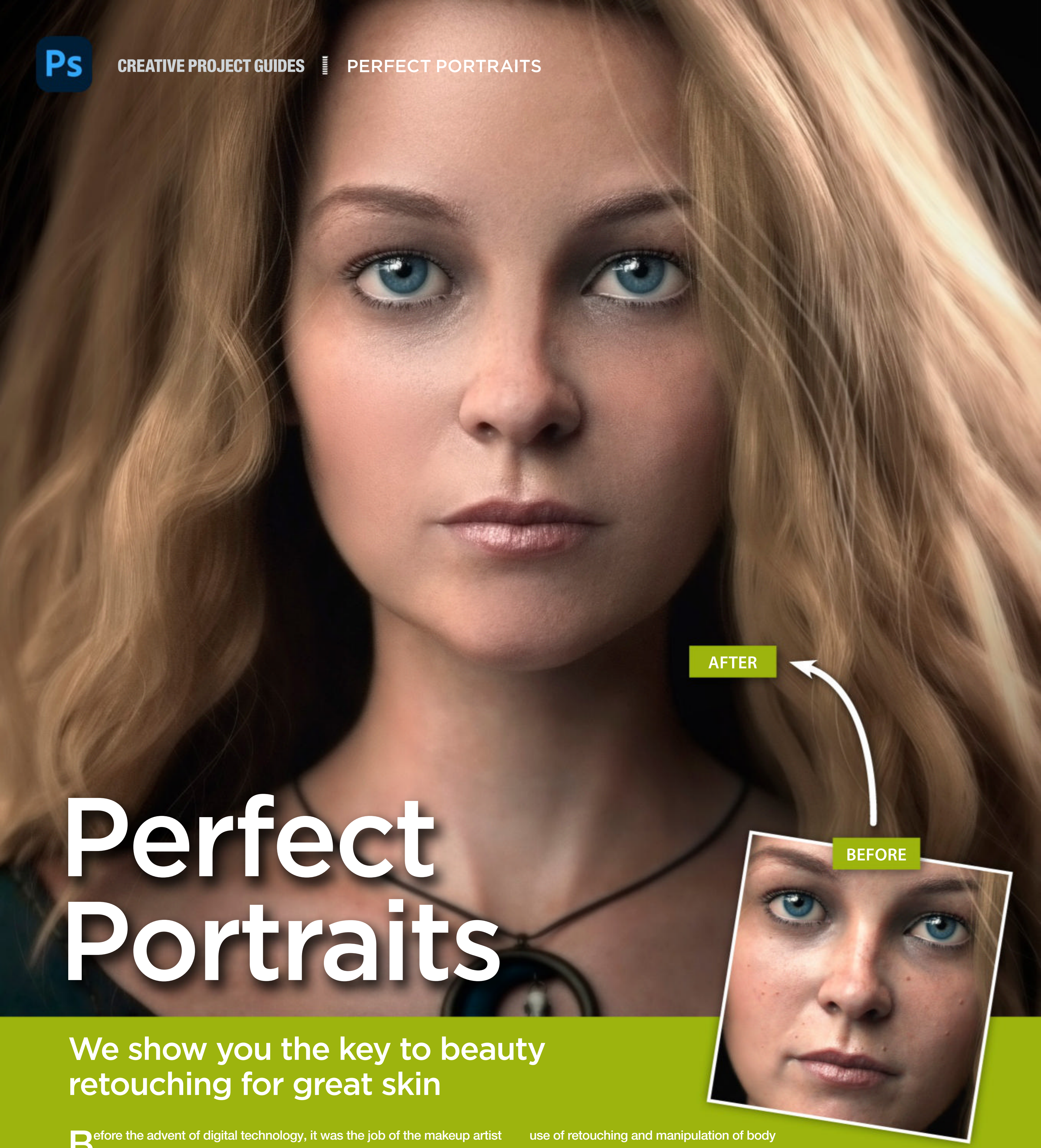
07 You have three options under the Hue/Saturation setting. Leave the Lightness slider in the middle position to preserve the overall brightness of the object, but you can experiment by moving the Saturation and Hue sliders around. As you move the Hue slider, the colour will start to shift through the spectrum of colours, or you can produce subtle colour changes with lower saturation settings, or say to hell with subtlety and go for broke with full saturation or Colorize the eyes.



ve As: colour replacement.jpg

Tags:

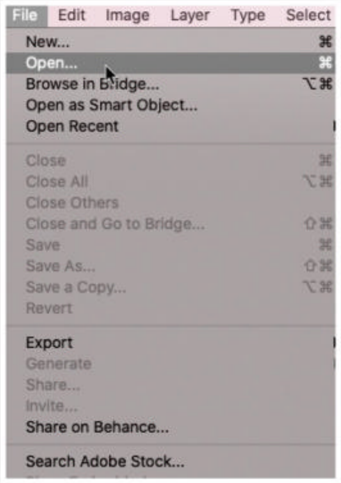
08 When you're happy with the result, or when your eyes start bleeding, you can clear the selection by using the keyboard shortcut Cmd+D, and then save the result. When you save the final image as a .PSD file in Photoshop or Elements, the selections are saved as well, embedded in the file.

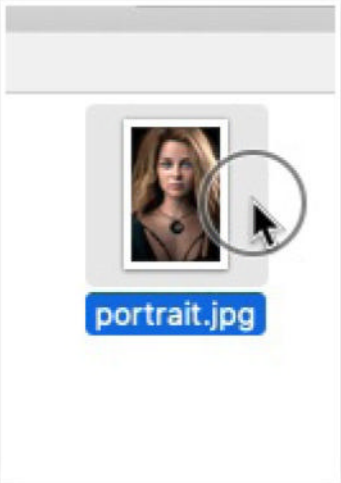


Perfect Portraits

We show you the key to beauty retouching for great skin

Before the advent of digital technology, it was the job of the makeup artist to get the skin looking perfect on set or in the studio. Now, thanks to Photoshop you are the makeup artist. You can control exactly how you want your model to look in the final image. As ever, there are numerous ways you can go about retouching skin. Some techniques are very simple but do not give natural results. Some take it to extremes and end up with their models looking like mannequins. Of course, there has been much debate about the use of retouching and manipulation of body shape. All we are looking to do is make our model's skin look as healthy and glowing as possible. We are going to use a technique called frequency separation. Simply put, you break the base image down into two components. One layer carries just colour and tonal information, the other layer holds detail and texture. This means you can work on one, without affecting the other. It's a simple and effective method.


File Edit Image Layer Type Select
New... ⌘
Open... ⌘
Browse in Bridge... ⌥⌘
Open as Smart Object...
Open Recent
Close ⌘
Close All ⌥⌘
Close Others
Close and Go to Bridge... ⇧⌘
Save ⌘
Save As... ⇧⌘
Save a Copy... ⌥⌘
Revert
Export
Generate
Share...
Invite...
Share on Behance...
Search Adobe Stock...


portrait.jpg

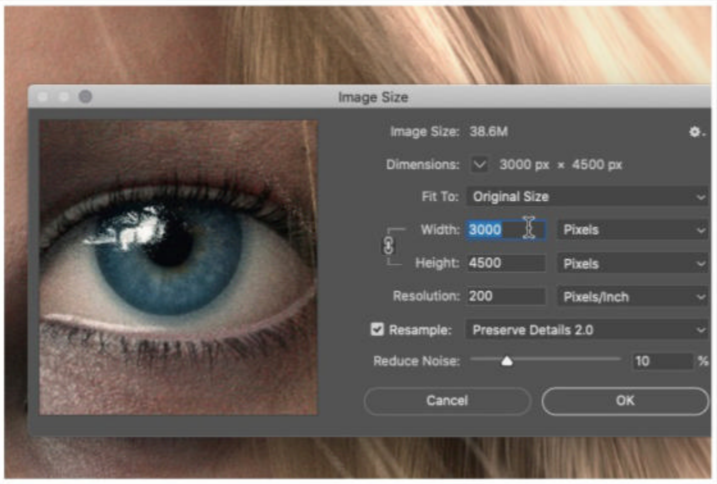


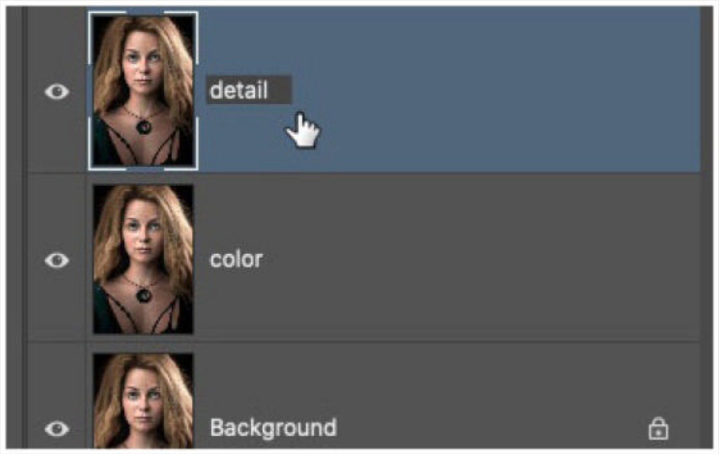
Image Size

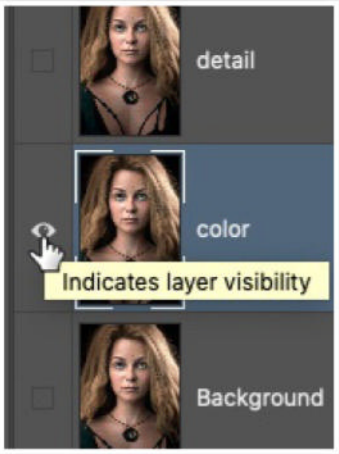
Image Size: 38.6M
Dimensions: 3000 px × 4500 px
Fit To: Original Size
Width: 3000 Pixels
Height: 4500 Pixels
Resolution: 200 Pixels/Inch
☑ Resample: Preserve Details 2.0
Reduce Noise: 10 %

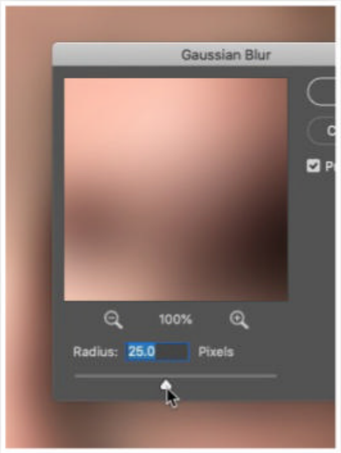
Cancel
OK

01 Let's begin by firing up Photoshop and from the file menu selecting File > Open. Navigate to where your images are stored. Our base image is a jpeg file called 'portrait'. If you double-click your image or click the Open button, the image will open in Photoshop as a new document.

02 For your reference, the image is 3000 pixels wide x 4500 pixels high. Throughout our tutorial we will be using settings and brushes appropriate to an image of this size. If you are using images of different sizes, your settings and brushes may need to scale to match your image dimensions.


detail
color
Background

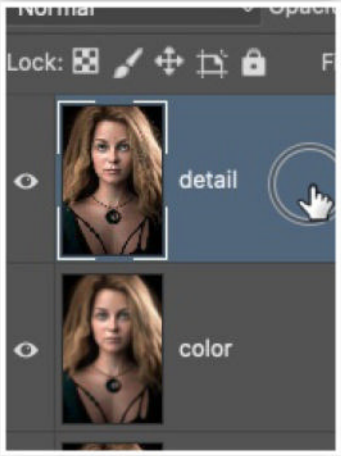

detail
color
Indicates layer visibility
Background


Gaussian Blur
100%

Radius: 25.0 Pixels

03 Now we need to separate this image into its component elements for this process to work properly. If you go to Layer > Duplicate Layer, or hit Cmd + J on your keyboard, you can create a duplicate of the base image. Name this new layer 'color'. Then create a second duplicate called 'detail'.

04 For the moment, turn off the visibility of the 'detail' and 'Background' layers, leaving the 'color' layer visible. Go to Filter > Blur > Gaussian Blur and choose a Radius value that is just enough to blur out any sharp details. A value of 25 pixels was just enough for this image.


Lock:
detail
color

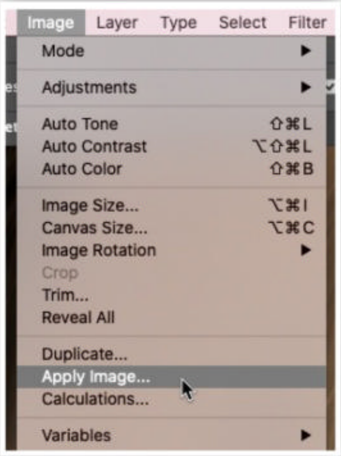
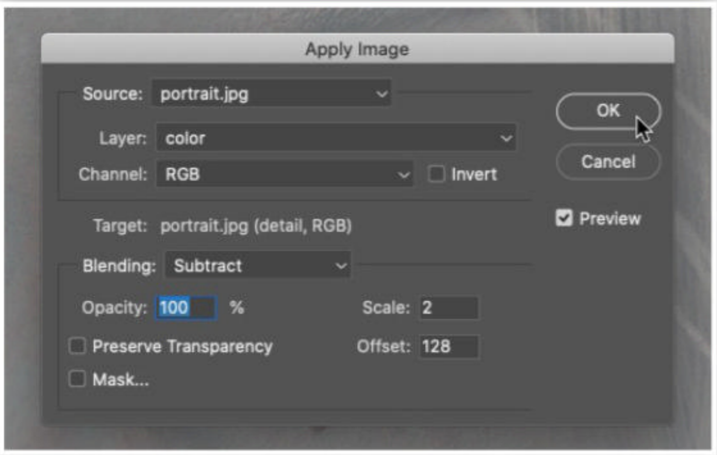


Image Layer Type Select Filter
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables

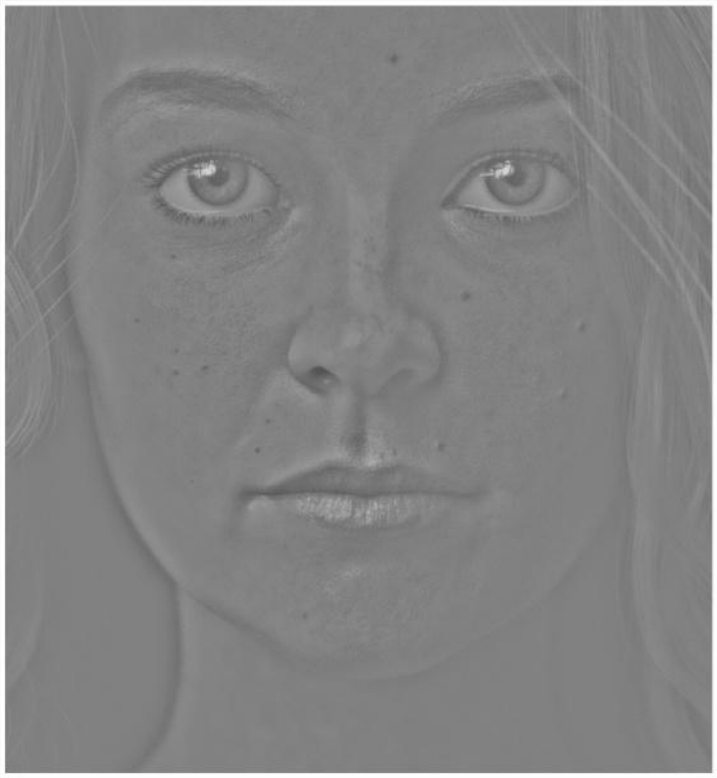

Apply Image

Source: portrait.jpg
Layer: color
Channel: RGB ☐ Invert
Target: portrait.jpg (detail, RGB)
Blending: Subtract
Opacity: 100 %
Scale: 2
Offset: 128
☐ Preserve Transparency
☐ Mask...

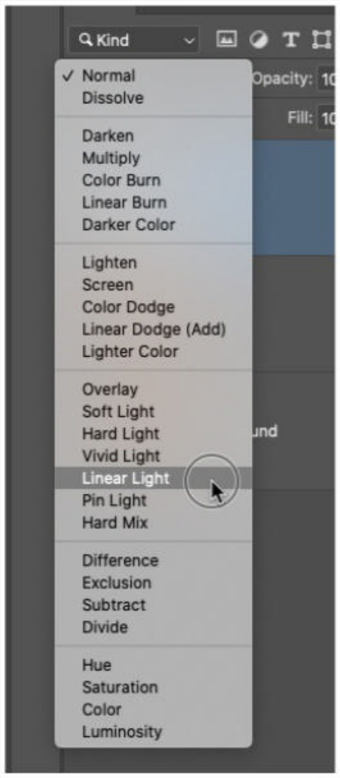
OK
Cancel
☑ Preview

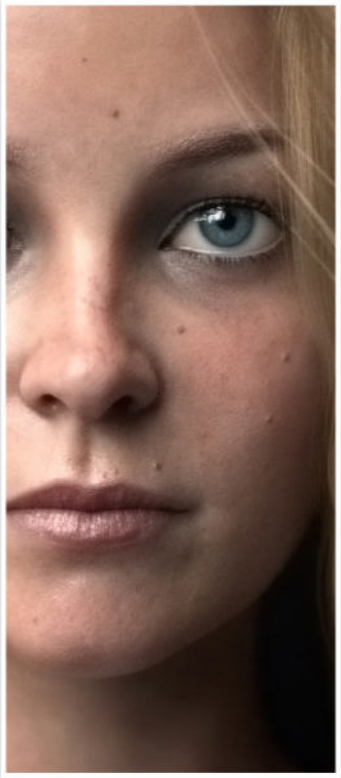
05 Next, make the 'detail' layer visible, again by clicking the eyeball button next to the thumbnail, and make sure it is the active layer. Go to Image > Apply Image to open up the Apply Image window. This lets you blend two images together for a range of effects.

06 Under Layer: select color and under Blending: choose the Subtract option. This means the 'detail' layer and the 'color' layer are blending to create a desaturated image. Make sure Scale: is 2 and Offset: is 128 for optimum results. Click OK to continue to the next step.

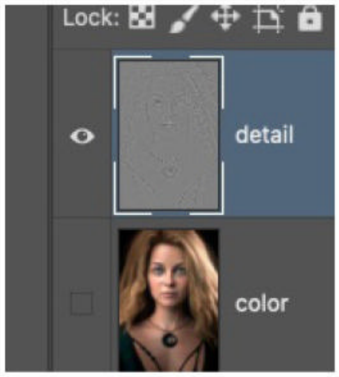


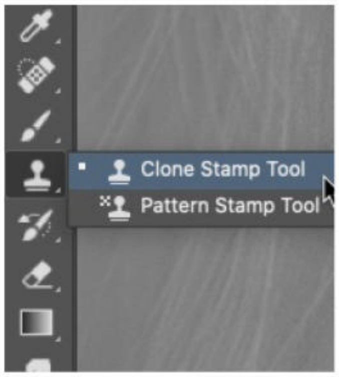
07 The ‘detail’ layer has now changed after its blended integration with the ‘color’ layer below it. To remove all vestiges of colour, go to Image > Adjustments > Desaturate (Shift + Cmd + U). The image will now look like a greyscale image. This is where all the detail will be kept in this process.

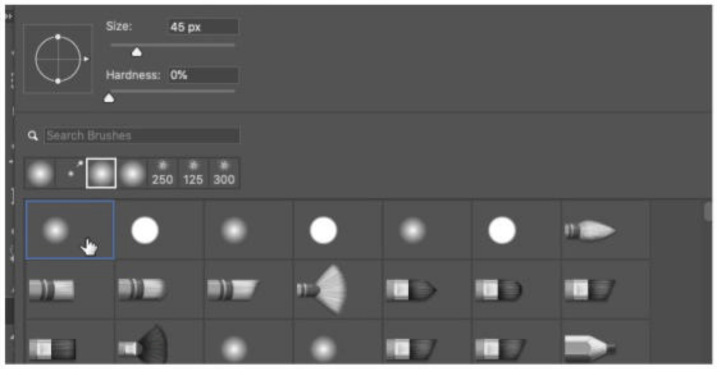

Kind
Opacity: 10
Fill: 10
Normal
Dissolve
Darken
Multiply
Color Burn
Linear Burn
Darker Color
Lighten
Screen
Color Dodge
Linear Dodge (Add)
Lighter Color
Overlay
Soft Light
Hard Light
Vivid Light
Linear Light
Pin Light
Hard Mix
Difference
Exclusion
Subtract
Divide
Hue
Saturation
Color
Luminosity



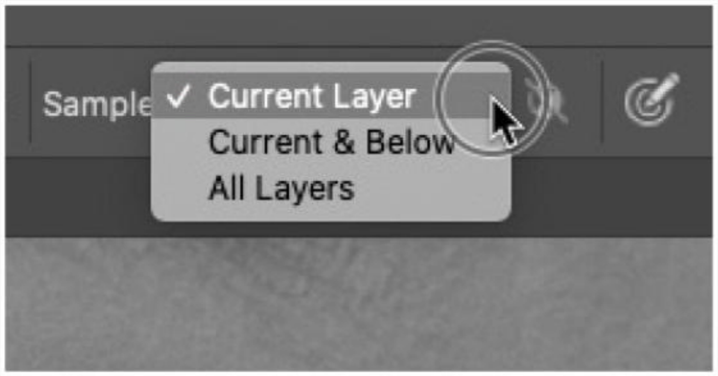
08 Next, click on the Blend Mode panel and choose Linear Light from the dropdown list. In combination, the ‘detail’ layer blending into the blurred ‘color’ layer below now looks like the original image, except it now requires those two layers to achieve it.

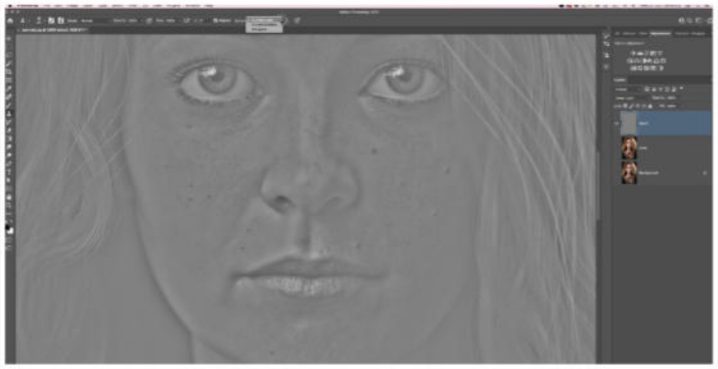

Lock:
detail
color


Clone Stamp Tool
Pattern Stamp Tool

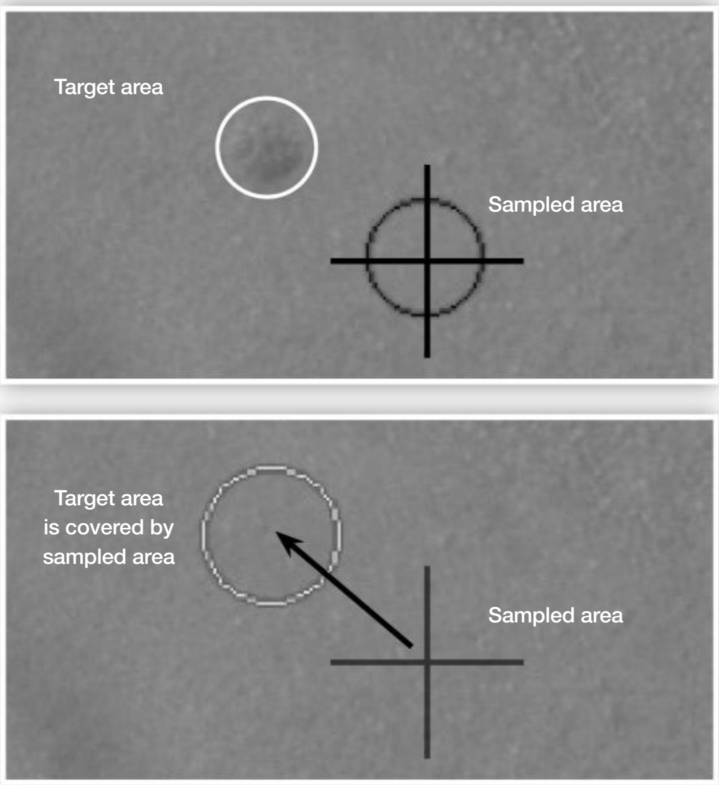

Size: 45 px
Hardness: 0%
Search Brushes
250
125
300

09 For the next step, make sure the ‘detail’ layer is the only visible layer and that it is currently active. Go to the toolbar and select the Clone Stamp Tool (S). Up in the Tool Options panel, click the Brush Presets button and select a brush of about 45 pixels and Hardness 0%.

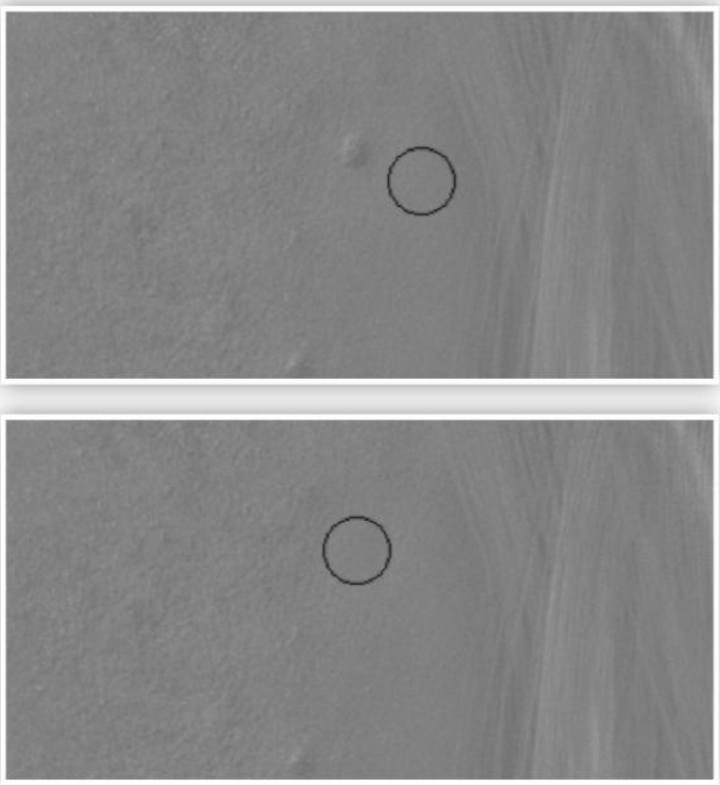

Sample
✓ Current Layer
Current & Below
All Layers



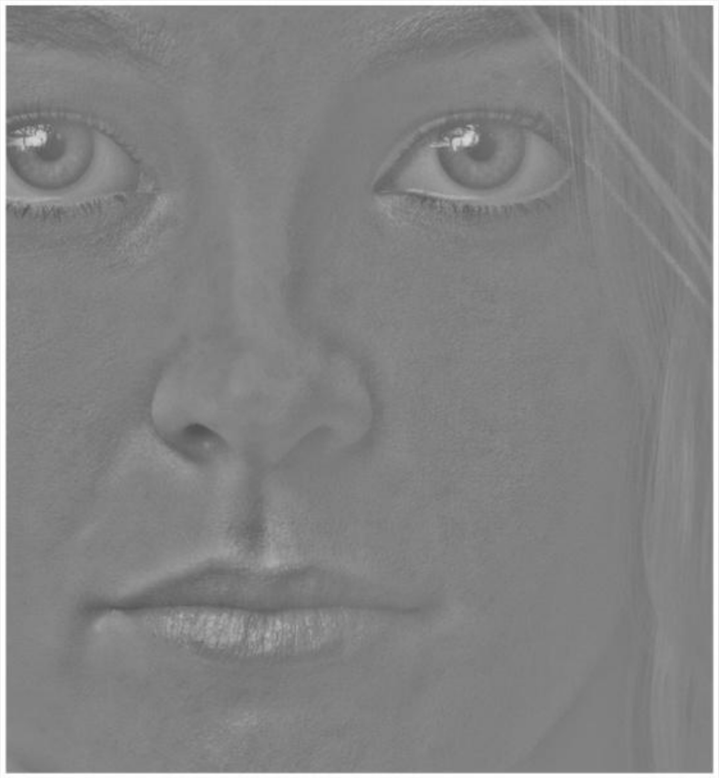
10 This is critical: make sure the Sample panel is set to Current Layer. You do not want what you are about to do next to be influenced by any other layers. We’re going to use the Clone Stamp Tool to copy and paste areas of clean, unblemished skin onto areas we want to look just as clean.



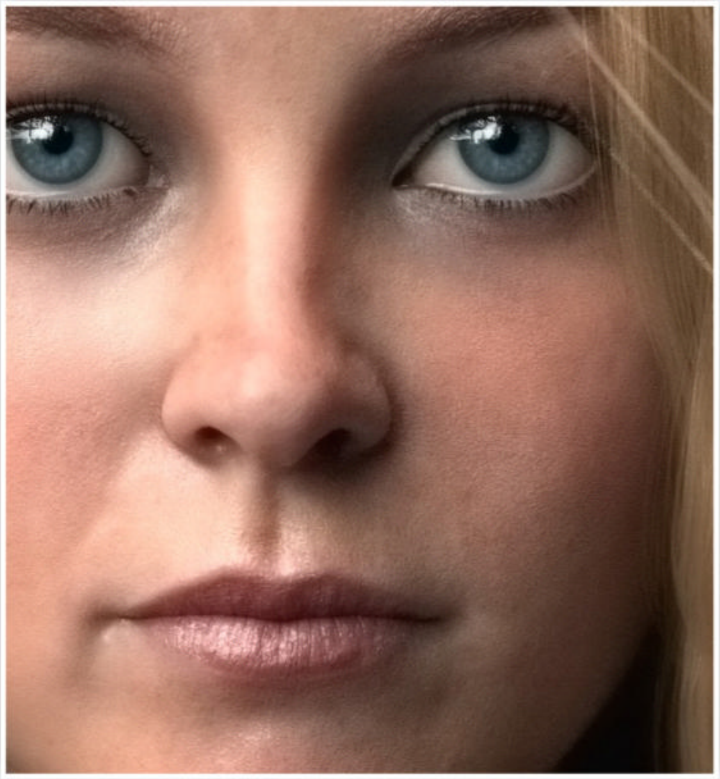
11 Pick your first blemish. Find an area of clean skin next to it and place your cursor over it. Press the Alt key and left-click that clean area. You have just sampled an area of clean skin. Move your cursor over the target blemish and left-click to paste the clean sampled area over the top.



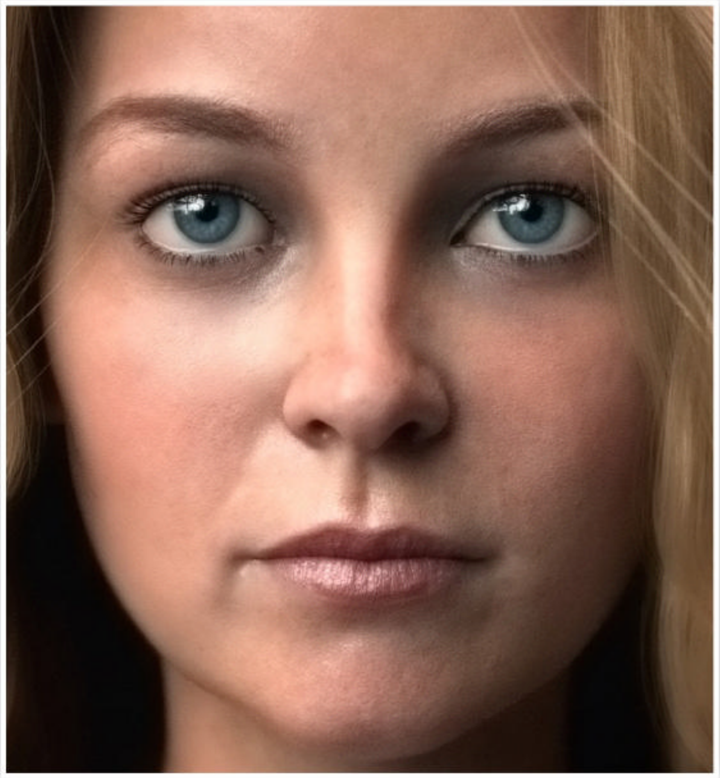
12 This is the basis of clone stamping. Now you can select clean areas next to each blemish and paste them over the top of each target spot to remove them. When cloning, take care not to overdo it, and watch out for tell-tale repeating patterns that signal incorrect use of the clone stamp tool.



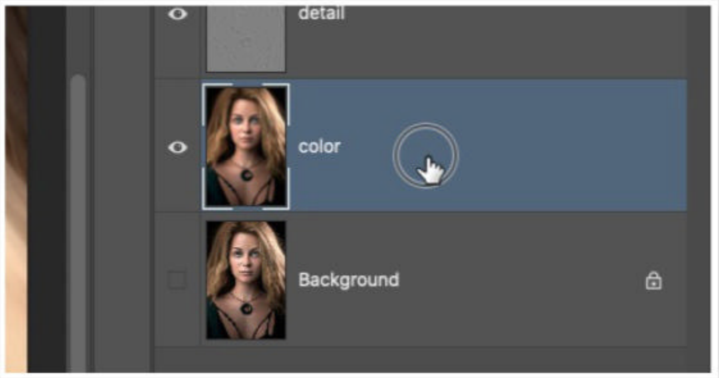
13 Because you are cloning skin on top of skin, this technique avoids problems that result in loss of detail, or noticeable blurring of areas that have been retouched. With a little patience and care, your subject's skin should look noticeably fresher and cleaner, ready for the next step.

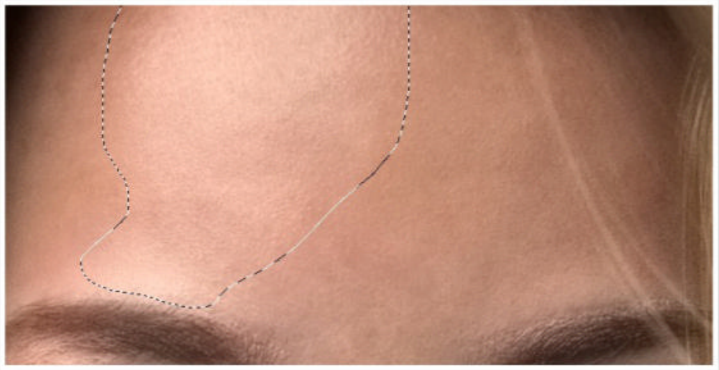


14 Click on the eyeball icon on the 'color' layer to make it visible again and you should now be able to view the fruits of your labours. The cleaned up 'detail' layer is blended back into the 'color' layer below, and the result is that you now have a subject with perfect skin.

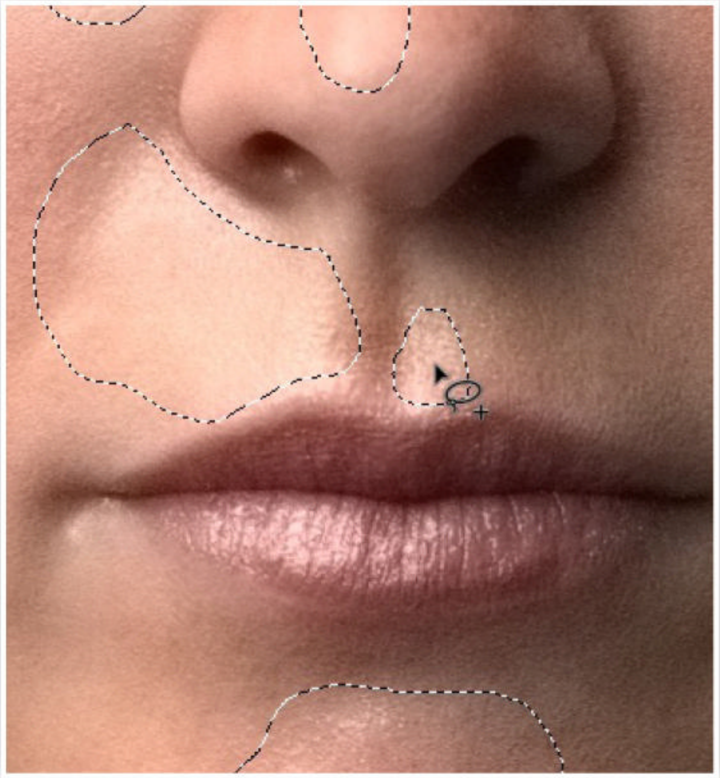


15 At this point you could sit back and conclude that your work is done, but there is another trick you can employ to enhance this portrait image still further. You may notice that the subject's skin has shiny hotspots on it. With a little attention, this can be removed quite easily.


detail
color
Background



16 Make sure the 'color' layer is active and then go to the toolbar and select the Lasso Tool (L). Use this tool to drag a selection around the shiny area of the forehead. If you need to add more areas to this selection, go to the Tool Options bar and click the Add to Selection button.



17 Your Lasso Tool cursor will have a small plus symbol (+) next to it to indicates that you can add additional selections to the ones you already have. We worked our way around the face, picking out areas that looked a little shiny and were in need of attention.

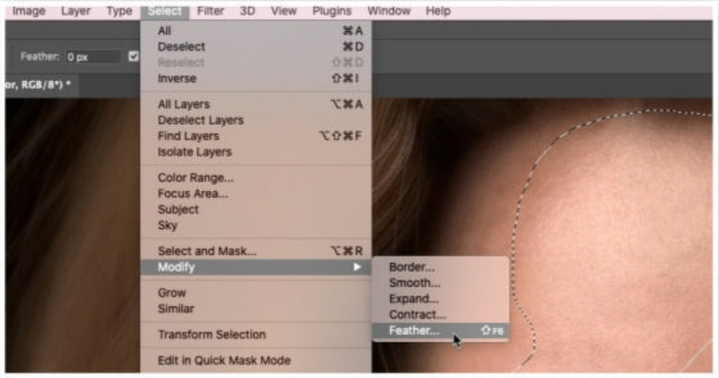
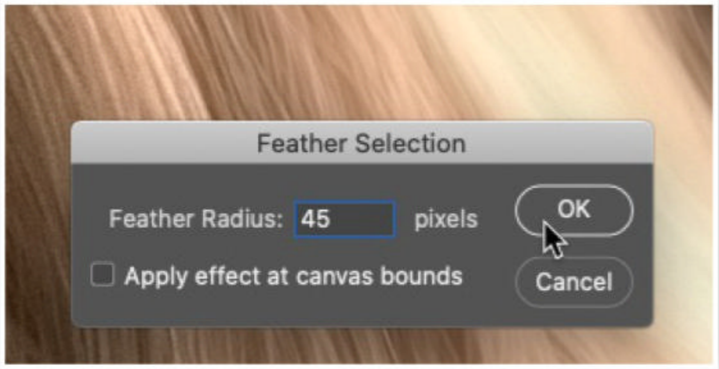


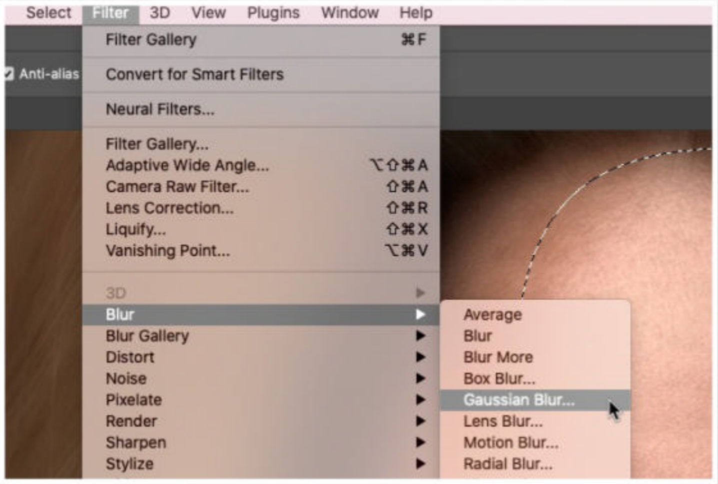
Image Layer Type Select Filter 3D View Plugins Window Help
Feather: 0 px
or, RGB/8*) *
All ⌘A
Deselect ⌘D
Reselect ⇧⌘D
Inverse ⇧⌘I
All Layers ⌥⌘A
Deselect Layers
Find Layers ⌥⇧⌘F
Isolate Layers
Color Range...
Focus Area...
Subject
Sky
Select and Mask... ⌥⌘R
Modify
Grow
Similar
Transform Selection
Edit in Quick Mask Mode
Border...
Smooth...
Expand...
Contract...
Feather... ⇧F6


Feather Selection

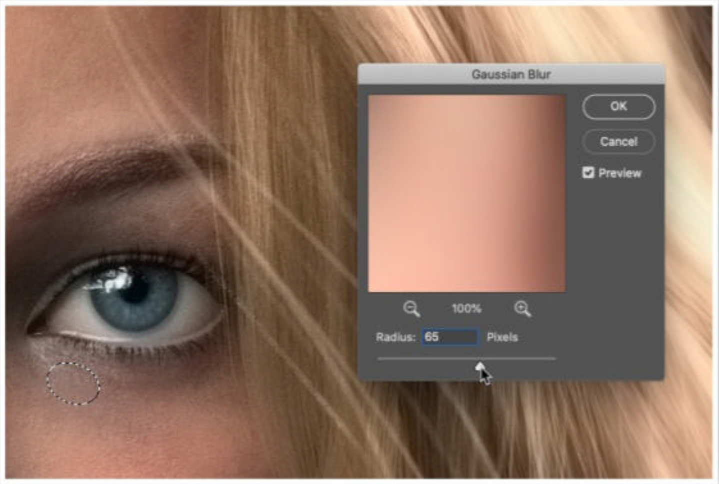
Feather Radius: 45 pixels

☐ Apply effect at canvas bounds

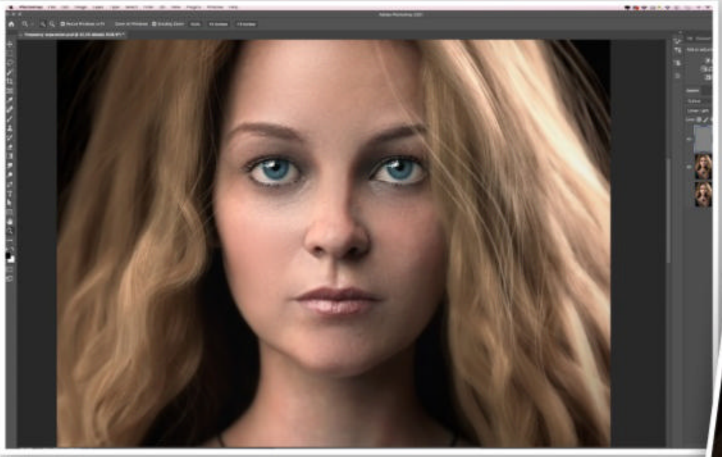
18 When you have all the areas that require some attention selected, go to Select > Modify > Feather (Shift + F6). This panel lets you feather the edge of the selections you've made. For the size of image we're working with, a radius of 45 should work just great. Click OK to continue.


Select
Filter
3D
View
Plugins
Window
Help
Anti-alias
Filter Gallery ⌘F
Convert for Smart Filters
Neural Filters...
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Average
Blur
Blur More
Box Blur...
Gaussian Blur...
Lens Blur...
Motion Blur...
Radial Blur...

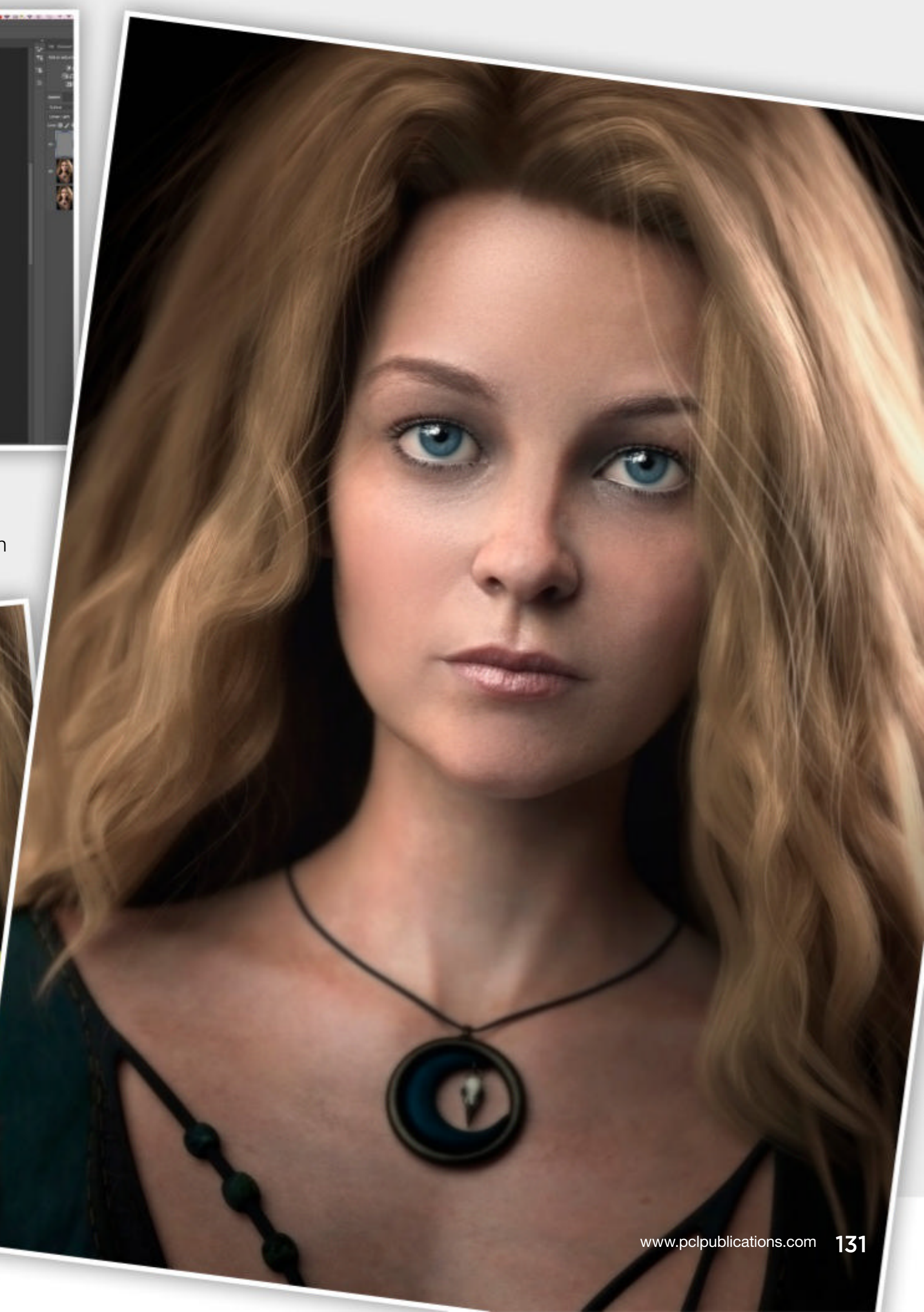
19 The selections will be softened ready for the next step. Go to Filter > Blur > Gaussian Blur to bring up a blur panel. Remember that you are working on the 'color' layer that is already blurred, but you can blur these specific areas even more.


Gaussian Blur
OK
Cancel
☑ Preview
100%
Radius: 65 Pixels

20 In the Gaussian Blur panel, choose a Radius value that blurs those areas of skin even more, and is just enough to reduce the amount of shine on the subject's skin. If you overdo it, it will look obviously blurred. In this case, a value of 65 pixels was enough to soften the shiny skin areas.

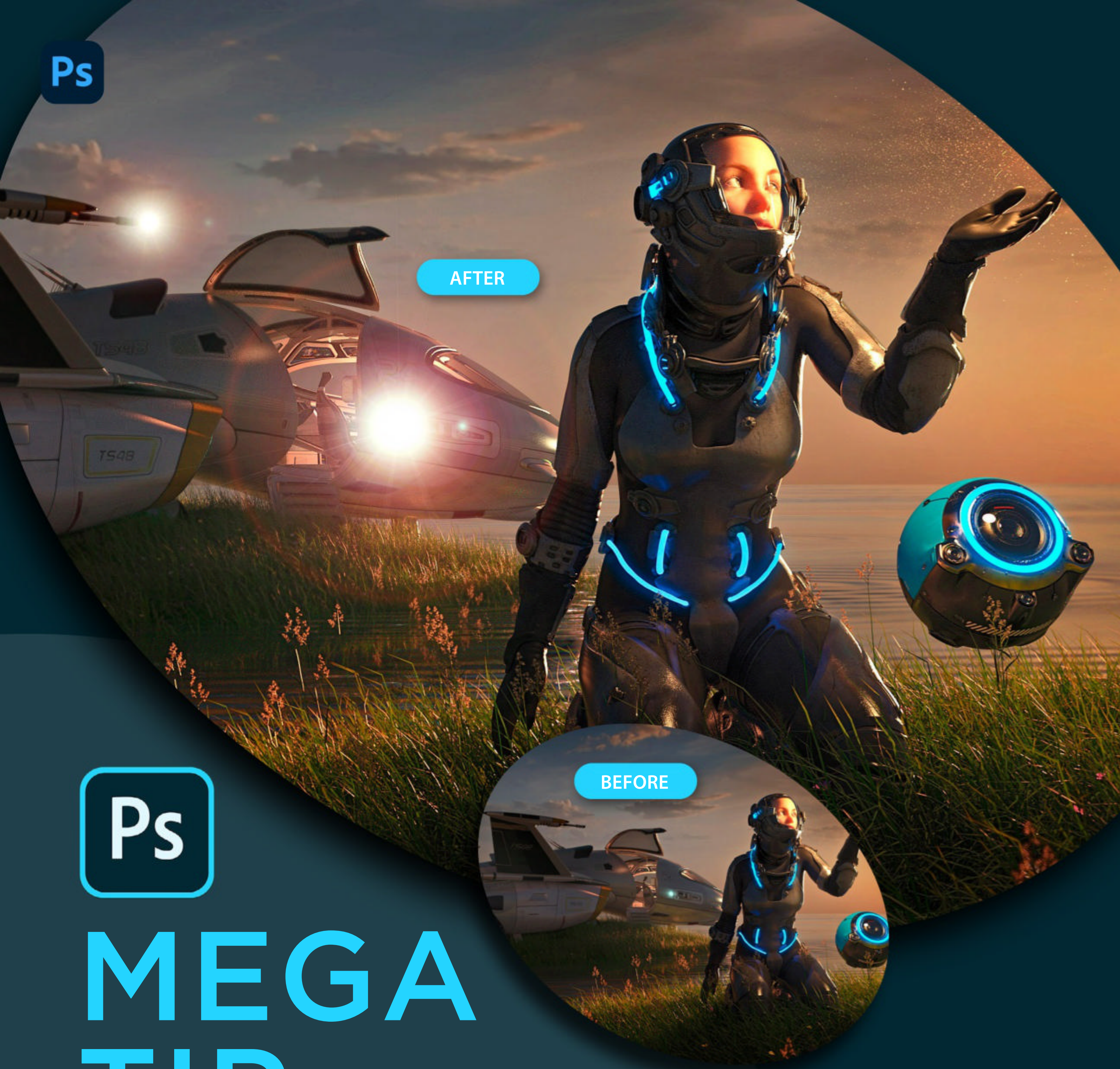


21 Now you can sit back and take in the work you've done to this portrait. The skin now looks like it has had the attention of a good makeup artist. The blemishes are gone, but the skin still looks like skin, with pores and detail, and not like a smooth shop dummy.



Create a flawless complexion

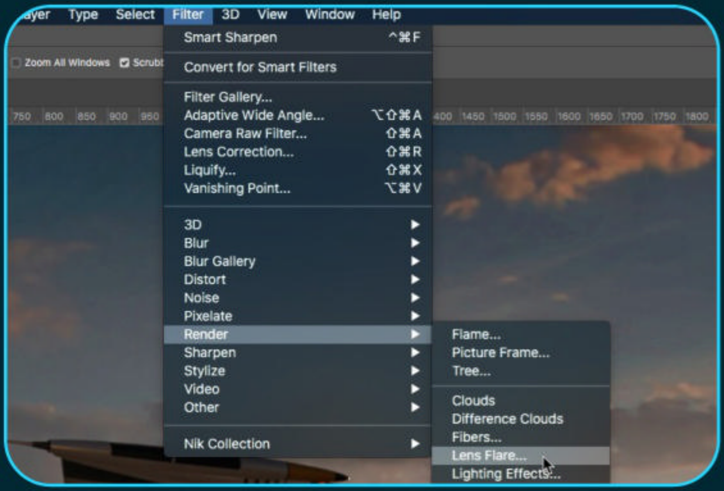
Now you have the key to perfect skin.



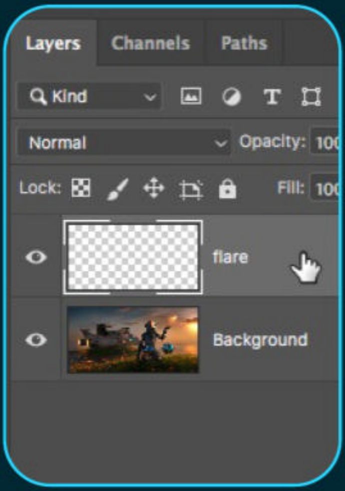
MEGA TIP

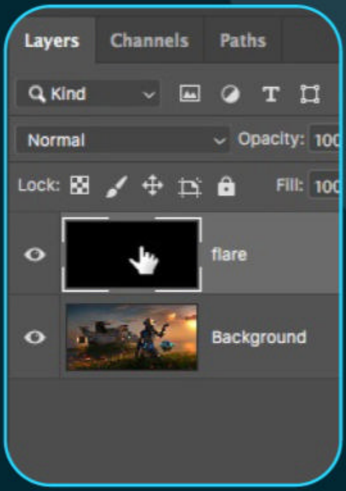
Precise Lens Flare Placement

This is a handy tip for placing a lens flare effect exactly where you want it, on any photograph. The lens flare tool can be a bit hit and miss, but this lets you work non-destructively and with pixel precision.

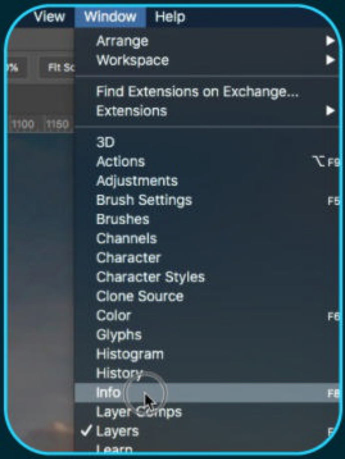

Layer Type Select Filter 3D View Window Help
Smart Sharpen
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle...
Camera Raw Filter...
Lens Correction...
Liquify...
Vanishing Point...
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Nik Collection
Flame...
Picture Frame...
Tree...
Clouds
Difference Clouds
Fibers...
Lens Flare...
Lighting Effects...

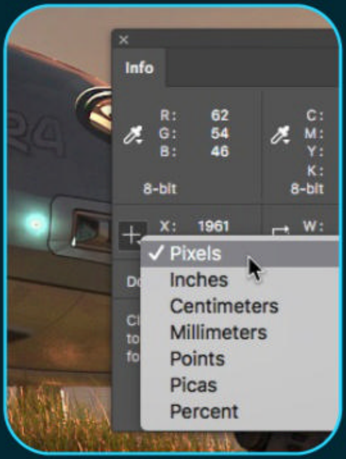
01 Normally, to add lens flare you would go up to the File menu and choose Filter > Render > Lens flare. This opens up the Lens Flare panel, from where you can choose the Brightness and Lens Type for your flare effect. The preview window allows you to drag the centre of the flare around.


Layers
Channels
Paths
Kind
Normal
Opacity:
Lock:
Fill:
flare
Background


Layers
Channels
Paths
Kind
Normal
Opacity:
Lock:
Fill:
flare
Background

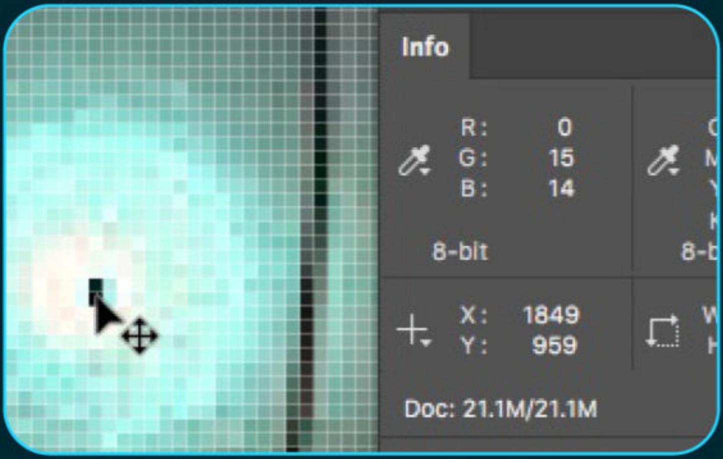
02 Alternatively, create a new layer above your base image. In our example, we have named it ‘flare’. Go to Edit > Fill and fill the layer with 100% Black. Obviously, this will obscure your main image on the layer below. Now set the Blend Mode for the ‘flare’ layer to Screen and your main image will be visible again.


View Window Help
Arrange
Workspace
Find Extensions on Exchange...
Extensions
3D
Actions
Adjustments
Brush Settings
Brushes
Channels
Character
Character Styles
Clone Source
Color
Glyphs
Histogram
History
Info
Layer Comps
✓ Layers
Learn


Info
✓ Pixels
Inches
Centimeters
Millimeters
Points
Picas
Percent

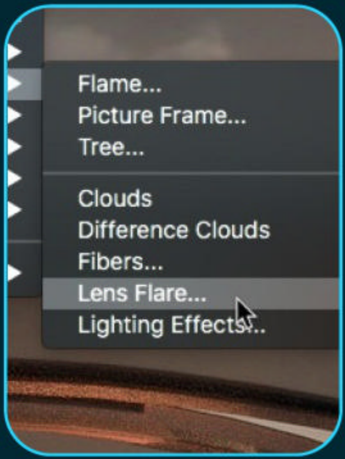
R: 62
G: 54
B: 46
8-bit
X: 1961

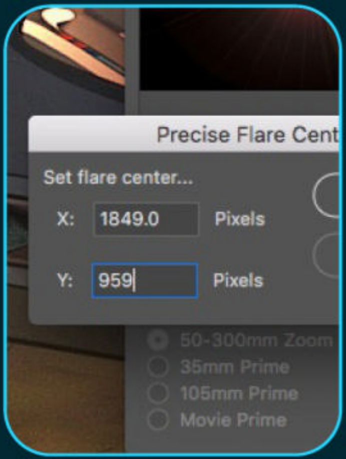
03 To call up the information panel go to: Window > Info. You will see it displays both the X and Y co-ordinates of your cursor. Click the small Crosshair icon next to the X and Y values and you can choose the units in which the co-ordinates are displayed. In this example, we used Pixels.



R: 0
G: 15
B: 14
8-bit
X: 1849
Y: 959
Doc: 21.1M/21.1M

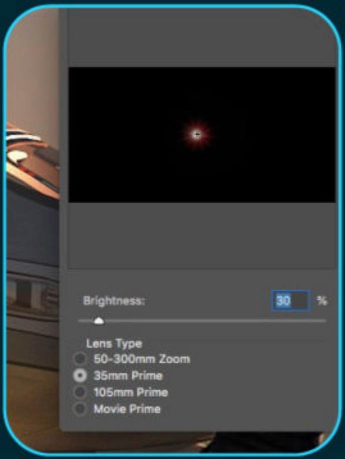
04 With the Info panel visible, you can zoom in to your photo and place the cursor over the exact point you want your flare to appear. Make a note of the X and Y co-ordinates (in this example, X: 1849 and Y: 959) and you are ready to add the lens flare to the ‘flare’ layer.


Flame...
Picture Frame...
Tree...
Clouds
Difference Clouds
Fibers...
Lens Flare...
Lighting Effects...

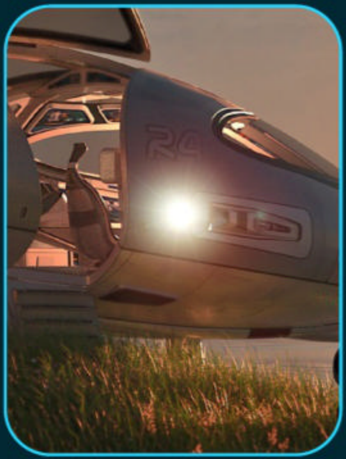

Precise Flare Cent
50-300mm Zoom
35mm Prime
105mm Prime
Movie Prime

Set flare center...
X: 1849.0 Pixels
Y: 959 Pixels

05 Go to Filter > render > Lens Flare, to open the Lens Flare panel. This time hold the Alt key and click on the preview image to open a new panel called Precise Flare Center. There are two boxes, where you can enter the X and Y values. Type in the values you made a note of from your Info panel.


Lens Type
○ 50-300mm Zoom
● 35mm Prime
○ 105mm Prime
○ Movie Prime

Brightness: 30 %



06 The flare will be moved to the precise position you placed your cursor on originally. Now you can adjust your Brightness and Lens Type as you would normally and then press OK to commit the flare to the ‘flare’ layer, on the exact X and Y values you chose. You can add more using this technique.

Adobe Camera Raw Editing

When you install Photoshop, you also get a very useful application called Camera Raw. It allows you to edit Raw files captured by digital cameras. A Raw file offers a higher quality than standard jpeg files. Think of Camera Raw as the little brother of Lightroom, which offers you a digital darkroom where Raw files can be processed.

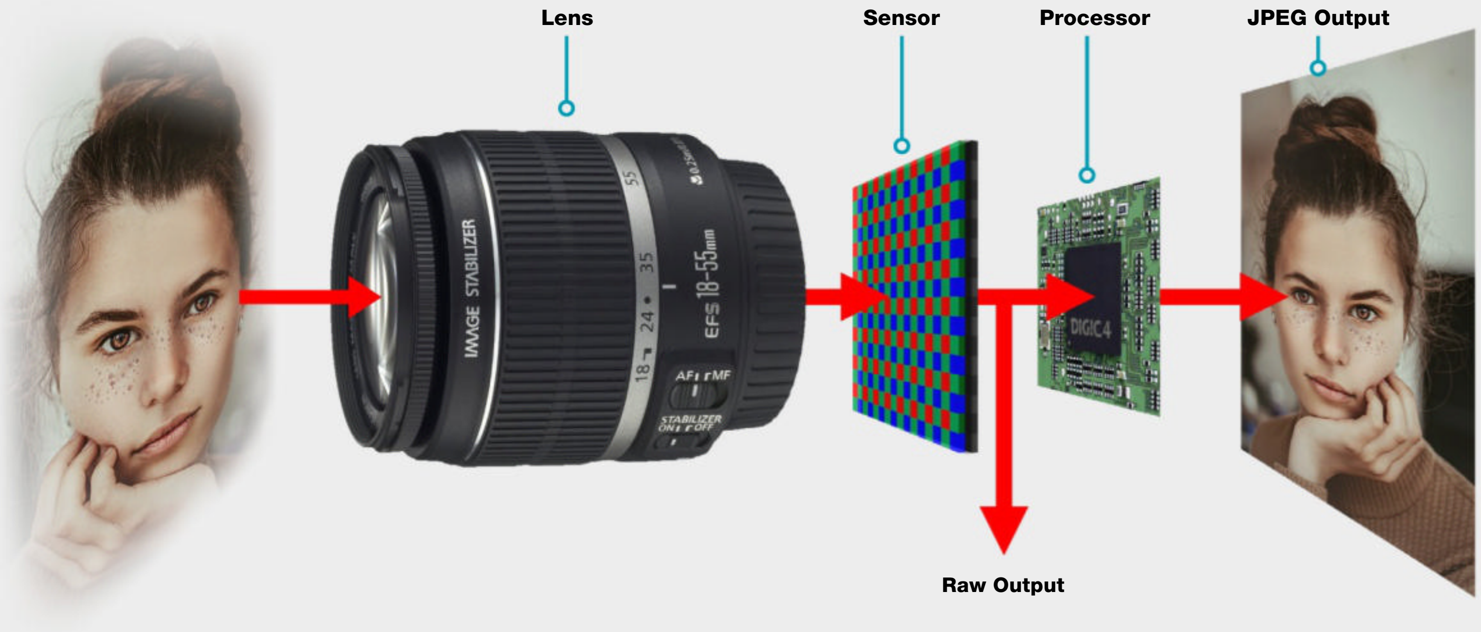
Processing Raw Files

For the best possible quality, shoot in Raw mode

All digital SLRs and Compact System Cameras, and most of the better compact cameras plus many new smart phones have a shooting option called Raw mode. You'll usually find it in the menu as an option under image quality. Raw mode offers greatly improved image quality over the usual JPEG image file format, and is recommended for all serious photographers. Let's take a closer look at Raw mode, find out how it works and see how it can help you produce better photographs.

MENU
INFO.
START/STOP
RATE
SET
Image quality Standard
RAW 22M 5760x3840 [925]
RAW
– RAW MRAW SRAW
+
JPEG
– L L M M S1 S1 S2 S3

What is Raw Mode?

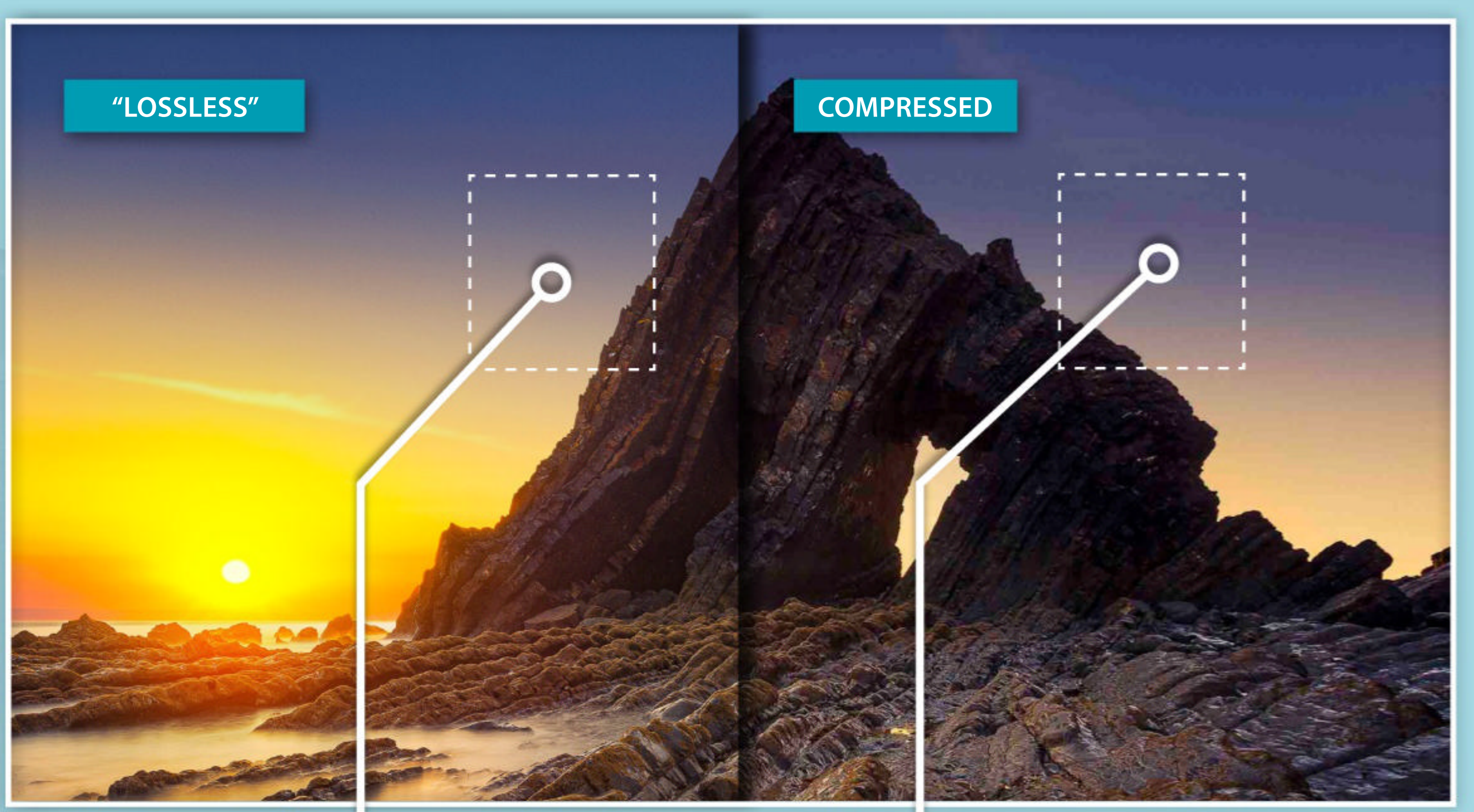


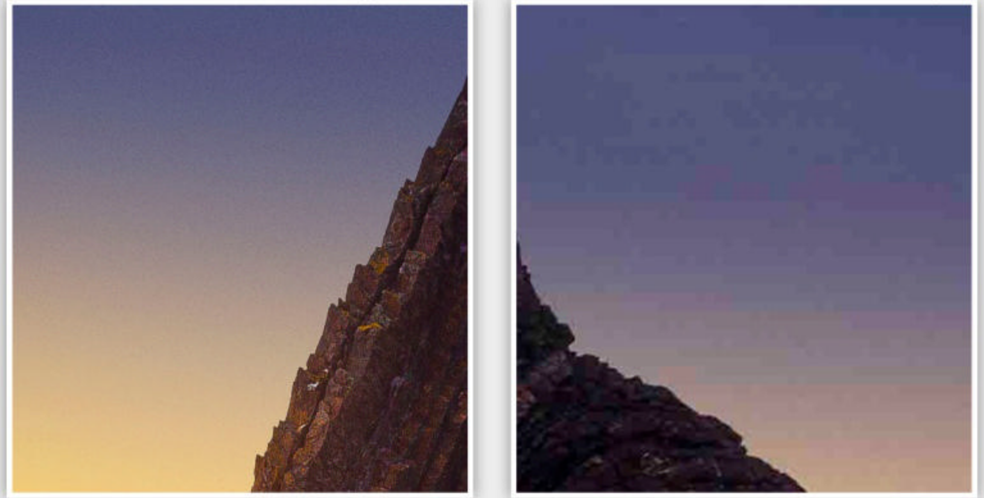
Raw mode is a special image recording option that is available on digital SLRs, Compact System Cameras, and other high-quality digital cameras. If your camera has this option, you have access to much higher image quality than the standard JPEG file format.

Essentially, Raw mode is just what it sounds like. It's the raw data pretty much straight from the camera's sensor. In a digital camera the photographic image is, as I'm sure you're aware, captured by an electronic image sensor. This sensor has millions of tiny photocells that produce a charge when they are exposed to light; the brighter the light, the higher the charge. Digital camera sensors don't record the colour of the light hitting them, just the brightness, so a special mosaic of coloured filters is placed in front of the sensor, called a Bayer filter.

Naturally, the image generated by the sensor and filter wouldn't make much sense to the unaided eye, so the signal from the sensor feeds into the camera's image processor, a combination of computer electronics and software which turns the brightness data from the sensor, adjusted for the colours in the Bayer filter, into a full colour digital image that you can view and print.

Part of that process includes reducing the bit-depth of the basic image data (the amount of 1s and 0s used by a computer to describe each pixel), usually from 36-bit (12 bits per channel)





USEFUL TIP

Modern cameras all come supplied with Raw processing software, although if you have Photoshop, it has Adobe Camera Raw built in as part of the application. Try to get used to always shooting in Raw mode on your camera. The quality and processing possibilities are much greater than JPEG files. These days, even some camera phones have the ability to shoot in Raw format. They are larger file sizes than JPEGs but the benefits become clear once you start to understand how much more processing ability you have. Your photos will see a marked improvement when you use Raw.

or even 48-bit (16 bits per channel) to 24-bit (8 bits per channel), which makes a smaller and more easily processed file, but loses some colour depth because of the smaller palette that can be represented by that many bits. Other adjustments to the colour balance, such as unusual white balance settings, can also reduce image quality, as will heavy noise reduction.

In order to save space on the memory card, produce faster transfers and make it easier to display and print the photograph on a computer, the image is usually converted to a compressed JPEG file. Unfortunately JPEG compression also reduces the image quality, and can introduce artefacts into some areas of the image.

The main advantage of Raw shooting, apart from the improvement in overall image quality, is that it bypasses the in-camera image processing, such as white balance, saturation, sharpness etc. This sounds illogical, but it's not really. The processing that takes place in the camera is pre-set before the shot is taken, and irreversible once the image has been converted to a JPEG file. By shooting in Raw mode, you can make the processing adjustments after the shot has been taken, and if you need to change them you can do so as long as you have the original Raw file.

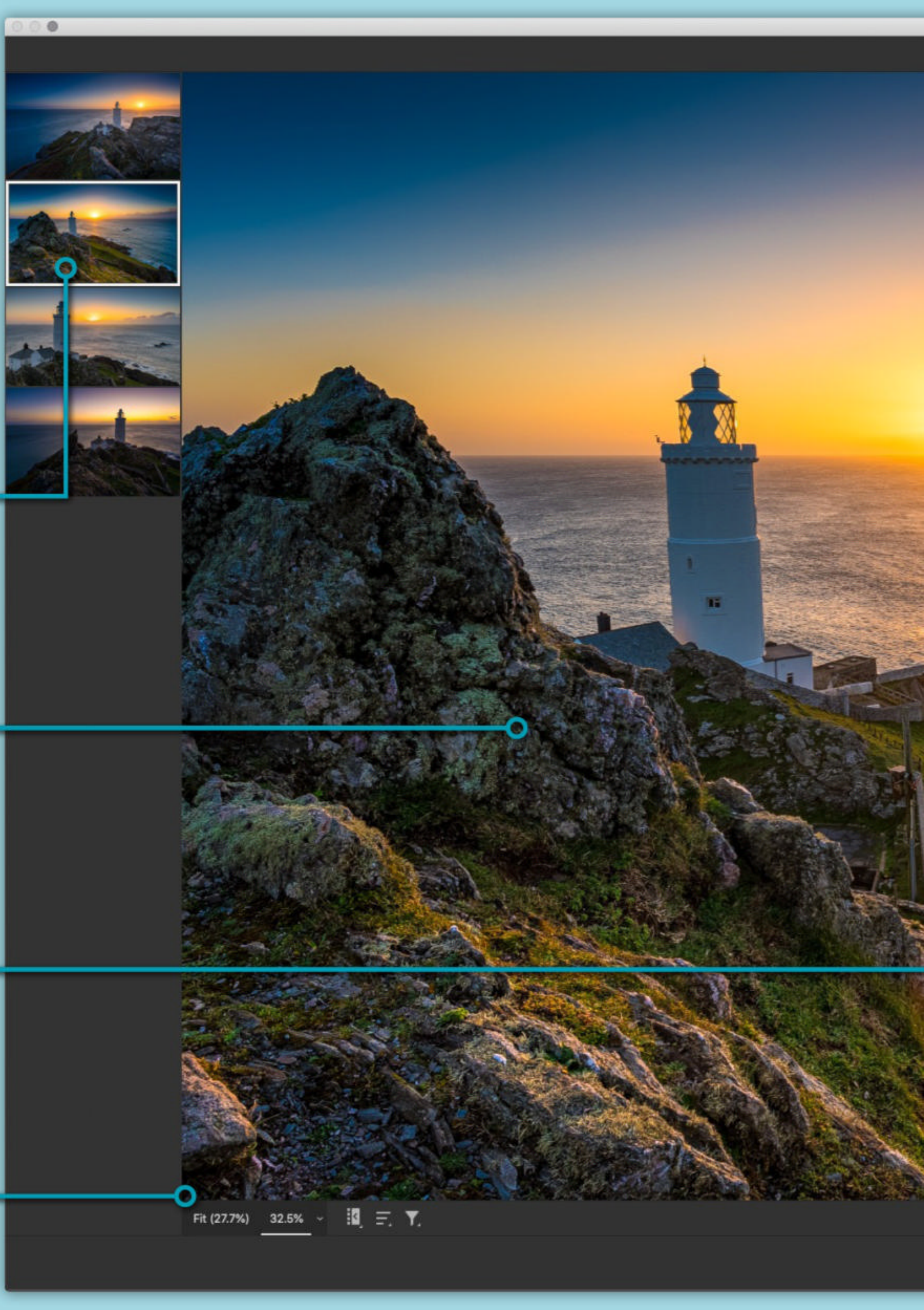
The downside to Raw file recording is of course that the saved files are much larger, so they take a lot longer to save to the memory card, and you can fit fewer of them on there. For a typical 16MP DSLR, a high quality JPEG file will be around 8MB, while a Raw file will be around 25MB, over three times the size.

Many of the more recent DSLRs have the ability to record Raw and JPEG image files simultaneously. This has the advantage of the convenience of JPEG with the versatility and quality of Raw, but takes up even more space on your memory card. Fortunately the price of very large memory cards is falling almost daily, so this needn't be much of a problem.

Camera Raw

The new look for Photoshop's Raw processor

Photoshop comes with Camera Raw as standard. It offers a range of processing options that enable you to get the best out of your photos, including exposure adjustment, sharpening, noise reduction, colour correction and automatic correction for lens distortion. It's regularly updated so it's compatible with the latest cameras and lenses. It recently underwent a major update and the layout has been redesigned to match the look of the mobile version of Lightroom.



Film Strip

This shows all the files you currently have open in thumbnail format and is displayed on the left side of the screen. You can alter its orientation and display it along the bottom of the screen if preferred. Click the one you want to work on.

Image Window

The image you are currently working on is displayed here. All the changes and adjustments you make to the file is shown here in real time. If you alter the before and after view options the screen will be split in half accordingly.

Ratings and Preferences

The lower middle of the interface has a ratings panel so you can apply a star rating to each image you're working on. The small trashcan button will reset the rating to zero stars. Below that is a clickable link to Camera Raw's preferences.

Zoom and Orientation

The lower left area has two controls that let you control the amount of magnification of the currently active image that range from 6% to 1600%. Next to that is the show/hide Filmstrip button and orientation options.

Control Tabs

The user interface breaks the workflow down into discrete sections, each with its own tabbed palette of controls and adjustment sliders. Switch between them by clicking on their name to expand each panel such as Basic and Curve.

Info, Edit, Profile

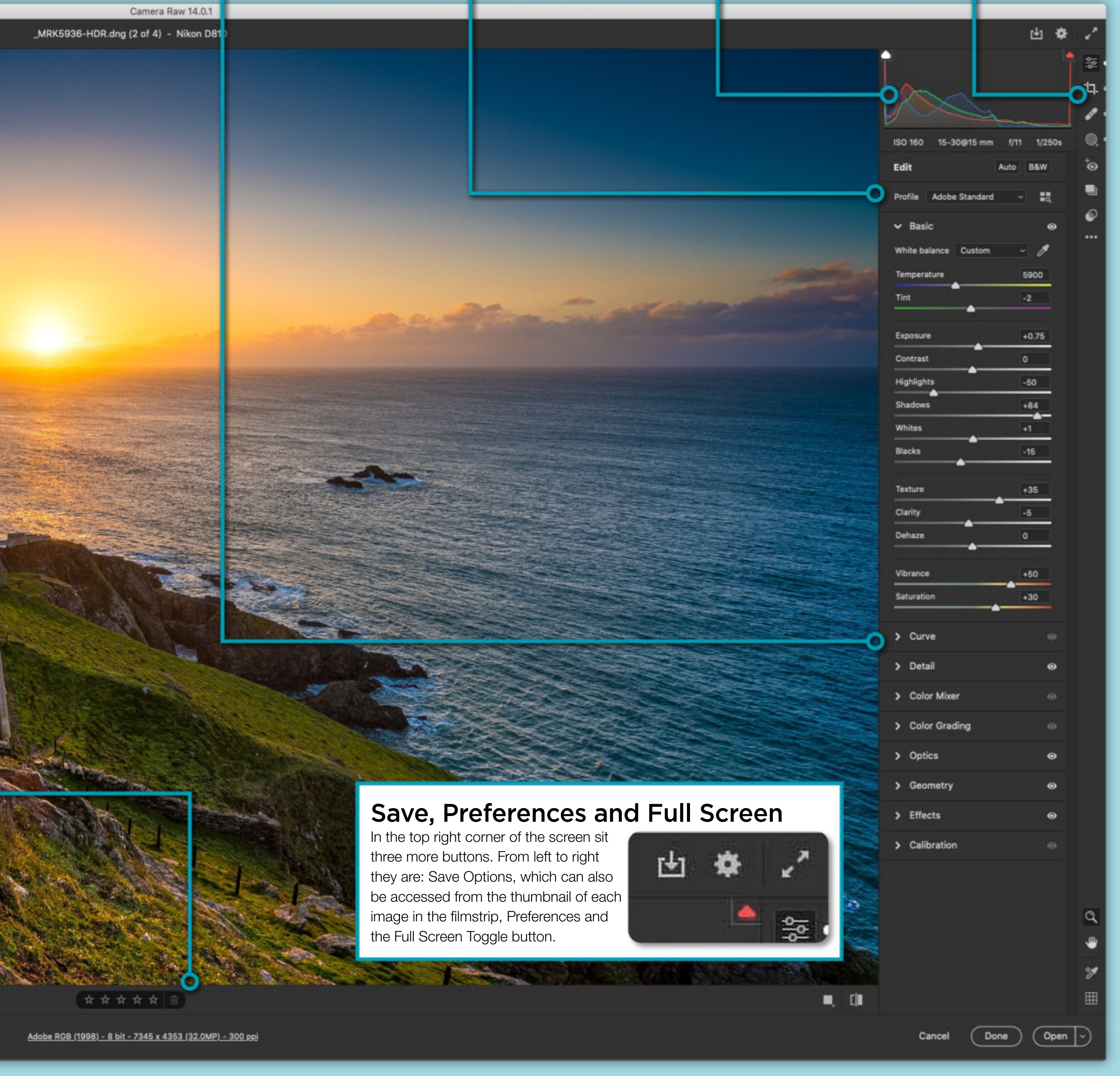
Below the Histogram are three small panels. The first displays information about the camera settings used. The second lets you choose if you are using Auto or B&W colour settings. The third is the colour profile selector and browser.

Histogram

This displays the distribution of tones in your image and changes as you apply different exposure and colour adjustments. Darkest tones are on the left of the graph and brightest on the right. It displays RGB colours and the combined colours.

Toolbar

This holds all the main selectable tools including Edit, Crop and Rotate, Spot Removal and Masking. The options for the tool you select will be displayed in the main control tab panel to the left of the toolbar and changes with each tool you choose.



Camera Raw 14.0.1

_MRK5936-HDR.dng (2 of 4) - Nikon D81

ISO 160 15-30@15 mm f/11 1/250s

Edit: Auto, B&W

Profile: Adobe Standard

Basic

White balance: Custom

Temperature: 5900

Tint: -2

Exposure: +0.75

Contrast: 0

Highlights: -50

Shadows: +84

Whites: +1

Blacks: -15

Texture: +35

Clarity: -5

Dehaze: 0

Vibrance: +50

Saturation: +30

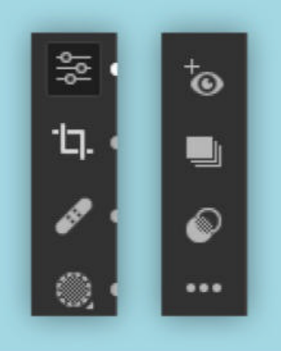
Adobe RGB (1998) - 8 bit - 7345 x 4353 (32.0MP) - 300 ppi

Save, Preferences and Full Screen

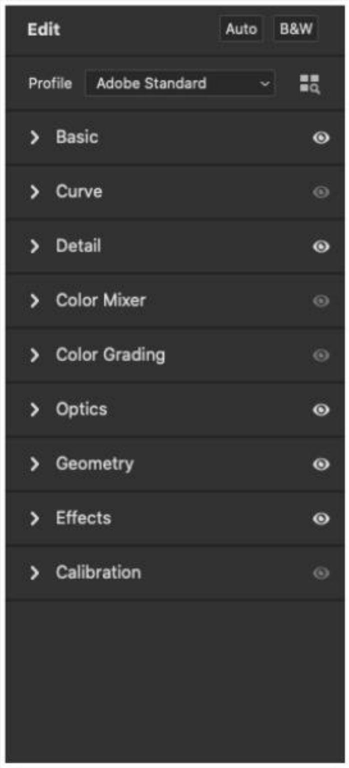
In the top right corner of the screen sit three more buttons. From left to right they are: Save Options, which can also be accessed from the thumbnail of each image in the filmstrip, Preferences and the Full Screen Toggle button.

The Toolbar

Get to know all the tools you have at your disposal in the current version of Camera Raw



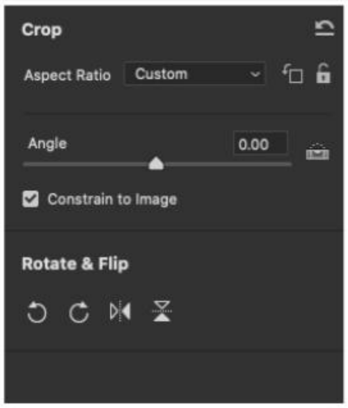
The Toolbar in the newly updated layout of Camera Raw sits vertically in the top right side of the interface. It is broken down into a series of buttons that you can click. Each button you click, will display its particular tools in the main control panel situated right next to the Toolbar. This version now looks more like Lightroom, the mobile-focused version.



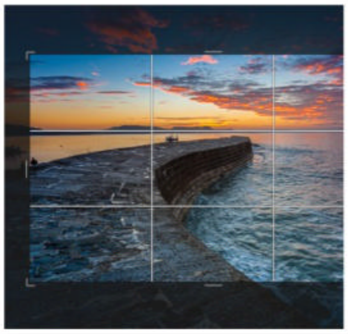
Profile: Adobe Standard

Edit

First in the Toolbar is the Edit button. Clicking on this displays the main tools that you will be using to edit and adjust your photos. Edit is broken down into nine sections that cover all your typical adjustment tools such as altering Brightness and Contrast, Hue and Saturation, Detail and Noise Reduction. There are also tools to correct optical flaws in camera lenses and alter image geometry amongst other options.

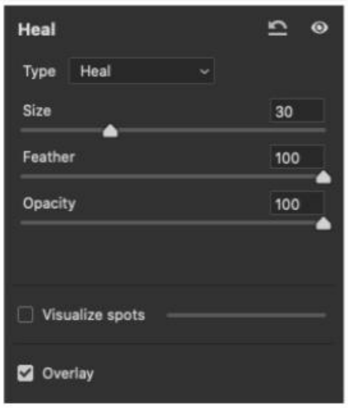


Aspect Ratio: Custom
Angle: 0.00
☑ Constrain to Image

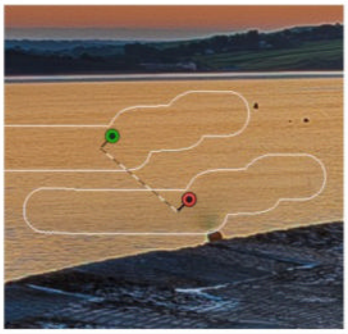


Crop & Rotate

As the name of this next tool suggests, this is where you can alter the aspect ratio of your image and perform a crop on it to either remove an unwanted part of the image, or get it to more closely adhere to a compositional guide such as the Rule of Thirds. It also offers a levelling tool that can be dragged over a slanted horizon to instantly correct it and options to rotate the image and flip it vertically and horizontally.

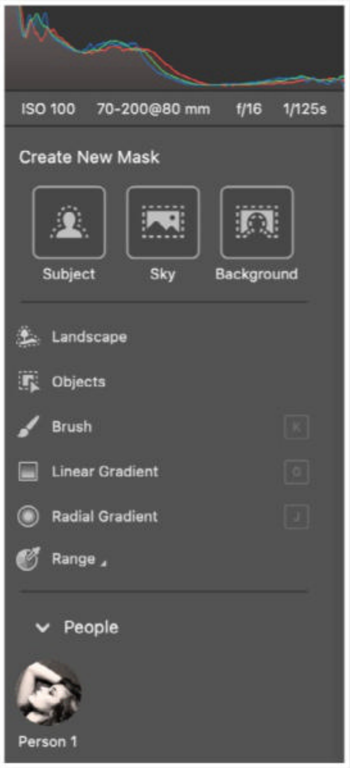


Type: Heal
Size: 30
Feather: 100
Opacity: 100
☐ Visualize spots
☑ Overlay



Spot Removal

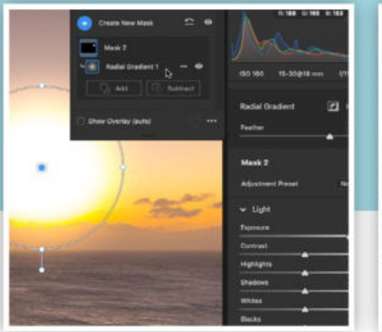
This is a useful tool that can remove spots and blemishes from your image by either cloning another area over the offending spot, or healing the area in question by blending other pixels into that area. You can choose the Size, Feather and Opacity of the brush which can still be moved once placed if required. If you have multiple images selected, the choices you make will be applied to all selected images at once.



ISO 100 70-200@80 mm f/16 1/125s

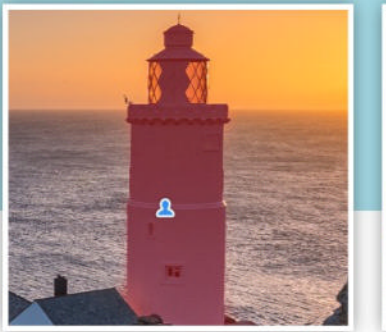
Masking

The most recent update to Adobe Camera Raw (version 17.3) sees a larger variety of option within the Masking button. Along with the original Gradient and Brush tools you now have Select Subject, Sky, or Background that then uses AI to locate People, Objects and Landscape options. It's a very useful update as well as tools to create masks for Color Range, Luminance Range and Depth Range.



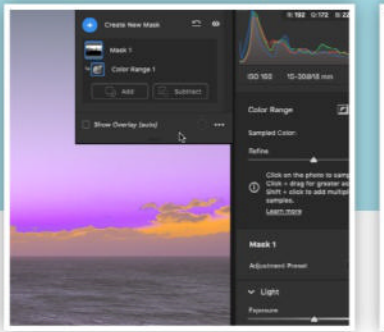
Brush & Gradients

The Brush, Graduated and Radial adjustment tools work just as they did before they were all amalgamated into one. Each tool has a set of adjustment parameters that appear in the tabbed palette on the right of the screen. You can manually brush adjustments onto your image or use the two gradient options to affect areas of your image and apply brightness, exposure, contrast, saturation, sharpness and much more.



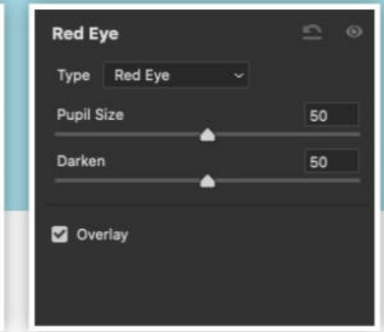
Select Subject/Sky

The two tools are something that up until now, only existed as a selection option in Photoshop. Now though, Select Subject and Select Sky have made their way to Camera Raw. When you activate each one, it scans the image for the most obvious subjects in the image or the main sky area and creates a mask for you. You can then apply various adjustments to those areas just as you would as if you had masked the area manually.



Color/Luminance

The Color Range and Luminance Range tools are variations on the methods you can use to select an area. The Color Range tool, as the name suggests, lets you sample an area of colour you wish to adjust and will only affect that chosen range of colours. Alternatively, the Luminance Range selection method allows you to choose areas of a specific brightness and then apply your adjustments to just those areas.



Red Eye

Type: Red Eye

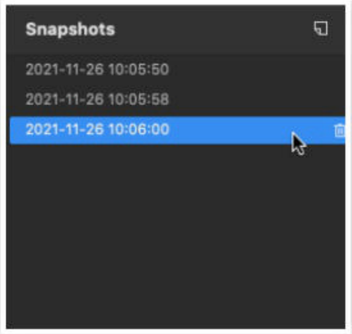
Pupil Size: 50

Darken: 50

☑ Overlay

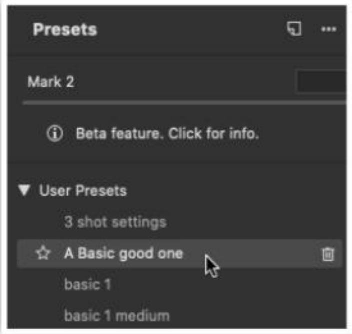
Red Eye Removal

Red eye is caused by the flash from a camera reflecting off blood vessels in the inside of the eye giving the owner of those eyes a rather demonic appearance. Pets can also suffer from this affliction but their eyes glow green. Modern cameras have red eye reduction ability, but sometimes they slip through. This tool can easily remove both red eye and pet eye and restore them to a more normal appearance.



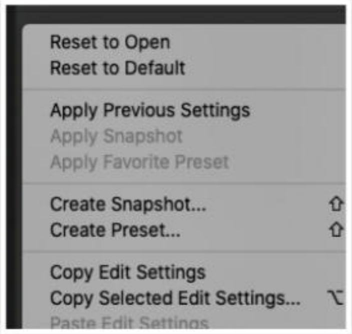
Snapshots

If you are working on a particularly involved edit to one of your photos, it may be prudent to use the Snapshots feature at key points during the edit. Adding a Snapshot saves the image in its current state and allows you to step back through your edits to a point in time when the Snapshot was created. You can still step forward as well since each Snapshot is a non-destructive save point in the adjustment process.



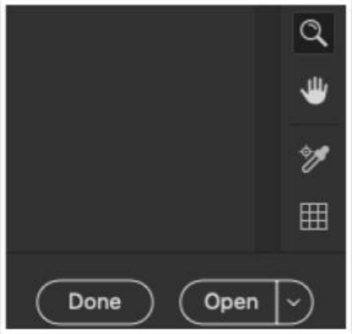
Presets

Pressing the Presets button in the toolbar presents you with an extensive list of image presets. This means that you can apply one-click adjustments to your photos. These presets range from High Contrast colour adjustments to Cross Process effects and a number of Creative and Black and White options too. You can also save any number of user-defined presets too and these are added to the User Presets list.



More Settings

Represented by three small dots, this button opens a menu of some additional options that allow you to Reset your image to one of a number of previous states. You can also apply either a favourite preset or a Snapshot. If you have a sumner of active settings you like and want to save it as a preset, you can export these to a named file. You can also Load or Save settings and set Raw defaults for newly opened images.



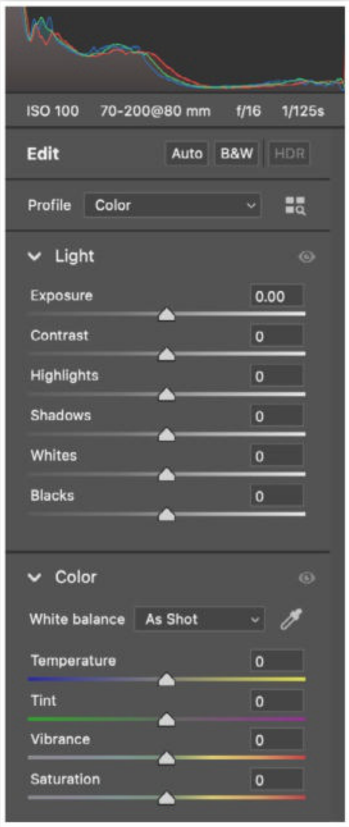
Additional tools

At the bottom of the toolbar on the right, there are also four additional buttons. The magnifying glass is the basic zoom tool (Z), then the Hand Tool (H) lets you click and drag your image around the screen. Press the spacebar to activate the same tool. The Sampler (S) lets you select a number of points and display their current RGB colour values. The Grid Overlay (Shift + G) helps general alignment of horizontal and vertical items.

The Edit Menu

Camera Raw has a powerful set of features all nested within a series of easily accessible control tabs

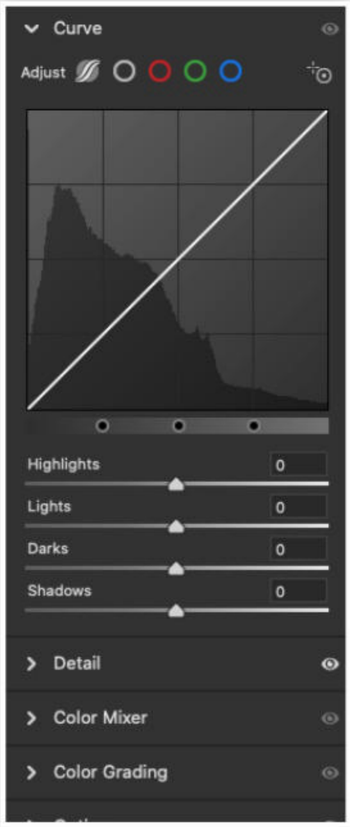
The main interface of Camera Raw is comprised of a series of menus, each with a series of control sliders and some additional menu tabs to access further features. Although you will no doubt spend most of your time working in the Basic panel, when used in conjunction with adjustments from the other control panels, you will be able to enhance your images beyond what you thought possible.


ISO 100
70-200@80 mm
f/16
1/125s
Edit
Auto
B&W
HDR
Light
Color

Profile Color
Exposure 0.00
Contrast 0
Highlights 0
Shadows 0
Whites 0
Blacks 0
White balance As Shot
Temperature 0
Tint 0
Vibrance 0
Saturation 0

Edit

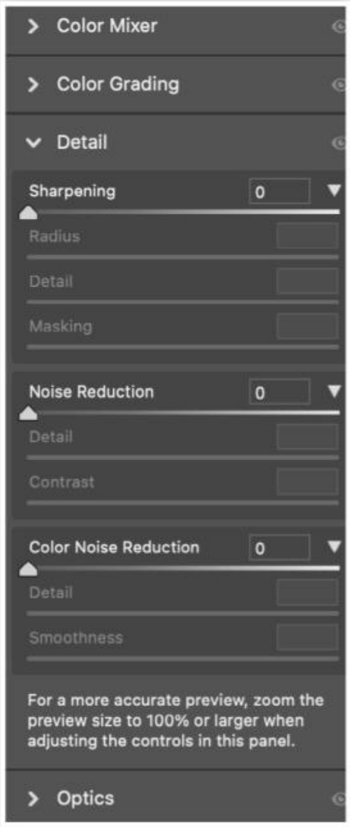
The Edit, previously called Basic, panel in Camera Raw is probably the one you will spend the most time in and also making the most important global image adjustments. You can adjust White Balance, Exposure, Contrast, Highlights and Shadows as well as Whites and Black. You can also adjust Temperature, Tint, Vibrance and Saturation to boost the purity of the colours in your image. There is also an Auto for an AI 'quick fix' plus B&W and HDR options.


Curve
Adjust
Detail
Color Mixer
Color Grading

Highlights 0
Lights 0
Darks 0
Shadows 0

Curve

The Curve options in Camera Raw behave very much like the Levels and Curves Adjustments you can make in Photoshop itself. The basic Parametric adjustments allow you to use sliders to individually adjust Highlights, Lights, Darks and Shadows. The Point Curve adjustment allows you to place custom control points. You can work with individual RGB curves too. There is also a Targeted Adjustment Tool for greater tonal editing precision.

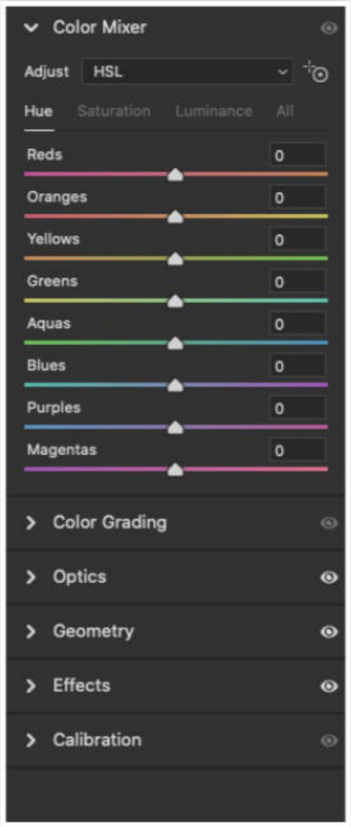

Color Mixer
Color Grading
Detail
Radius
Detail
Masking
Detail
Contrast
Detail
Smoothness
Optics

Sharpening 0
Noise Reduction 0
Color Noise Reduction 0

For a more accurate preview, zoom the preview size to 100% or larger when adjusting the controls in this panel.

Detail

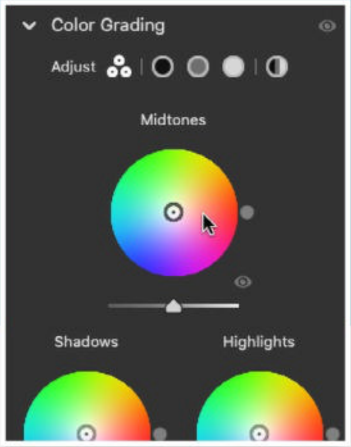
Here you can handle Sharpening and Noise Reduction. Sharpening works by increasing the contrast of the brightest and darkest edges in your image. The Detail and Masking sliders can effectively suppress the halo effects of over sharpening. The Noise Reduction settings help you reduce the amount of image noise and colour artefacts seen in high ISO photos with options to retain as much detail in your images as possible.


Color Mixer
Adjust
Hue
Saturation
Luminance
All
Color Grading
Optics
Geometry
Effects
Calibration

Adjust HSL
Reds 0
Oranges 0
Yellows 0
Greens 0
Aquas 0
Blues 0
Purples 0
Magentas 0

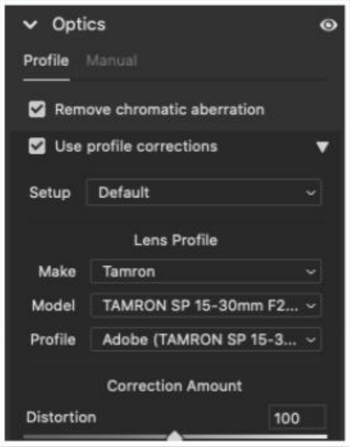
Color Mixer

The Color Mixer panel is where you can get to grips with the colours in your images and how you can affect them. The first panel is Hue, which lets you alter a specific range of colour values such as reds for example; then alter their hue to make them more magenta or make orange more yellow or blue more purple. The other panels allow the adjustment of their Saturation (intensity) and Luminance (brightness).


Color Grading
Adjust
Midtones
Shadows
Highlights

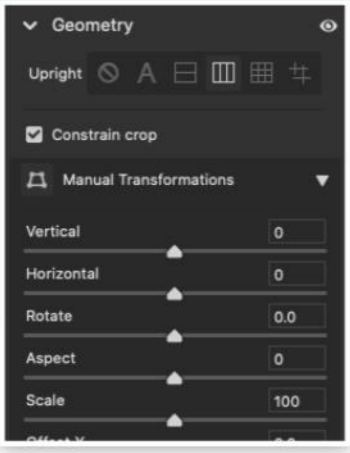
Color Grading

Colour Grading controls how much of a certain colour appears in the highlights or shadows of your images. Interactive colour wheels are used to choose the colour of the overall image and those in the shadows and highlights. Those chosen colours will start to dominate the brightest and darkest areas. Sliders determine whether Highlights or Shadows are more dominant and how intense they are.


Optics
Profile
Manual
Remove chromatic aberration
Use profile corrections
Setup
Default
Lens Profile
Make
Tamron
Model
TAMRON SP 15-30mm F2...
Profile
Adobe (TAMRON SP 15-3...
Correction Amount
Distortion
100

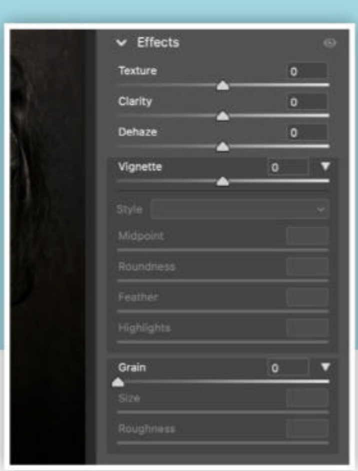
Optics

Throughout its life, Camera Raw has been updated at regular intervals. Each new update brings the latest profiles that can automatically assess your photo and determine what lens was used on the camera that took the shot. Once it knows what lens was used, it can apply a set of corrections that can eliminate lens aberrations and distortions specific to that lens. It does also allow for manual adjustments and Defringe control.


Geometry
Upright
Constrain crop
Manual Transformations
Vertical
0
Horizontal
0
Rotate
0.0
Aspect
0
Scale
100

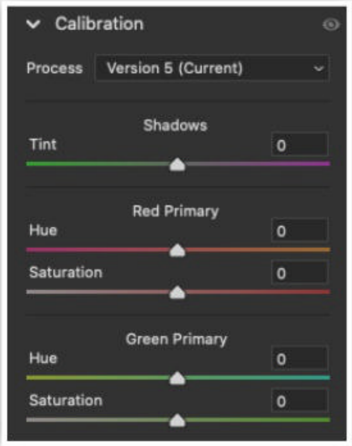
Geometry

The Geometry feature gives you control over the horizontal and vertical balance and geometry of your photos. From simply levelling a slanted horizon to correcting perspective in both the vertical and horizontal plane, you can apply an automatic adjustment that scans the image for strong upright edges and horizontal ones and corrects them. You also have the option to apply transformations manually as well.


Effects
Texture
0
Clarity
0
Dehaze
0
Vignette
0
Style
Midpoint
Roundness
Feather
Highlights
Grain
0
Size
Roughness

Effects

The Effects panel allows some handy features such as Texture, Clarity and Dehaze. You can also specify the Grain, the Size of the grains and the Roughness of the image grain you apply. You can also add Post Crop Vignetting which allows you to darken the outer edges of the photo before and after you've cropped the photo. You can control the Amount, Midpoint, Roundness, Feather and Highlights for the Vignette.

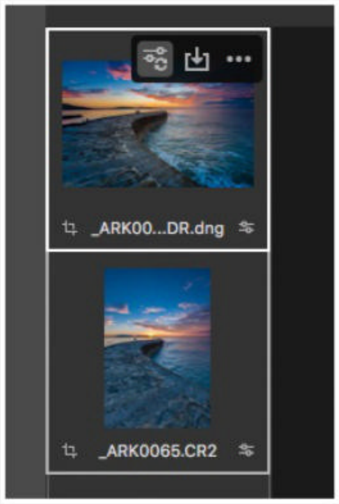

Calibration
Process
Version 5 (Current)
Shadows
Tint
0
Red Primary
Hue
0
Saturation
0
Green Primary
Hue
0
Saturation
0

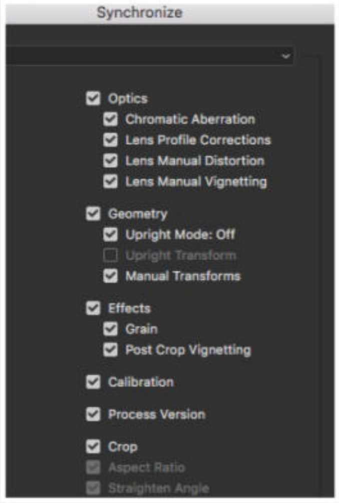
Calibration

Calibration is a module more powerful than it may look at first glance. Mainly used as a calibration for your camera it can be a brilliantly creative tool. You could think of the Calibration panel as a more refined Hue and Saturation adjustment tool. You can alter the Tint value found in the shadows of your image, as well as adjust the general use of Hue and Saturation in the Red Green and Blue channels of your image for much finer control.

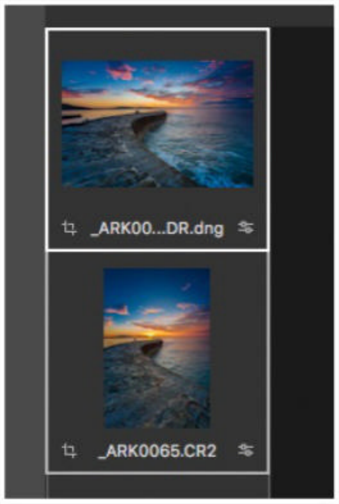
USEFUL TIP

The filmstrip is the area dedicated to displaying thumbnail images of the currently selected images you are working on in Camera Raw. One useful feature you can employ to save time when editing similar images is to copy your edits and adjustments from one image to other images in your filmstrip. Take one image and edit it to suit your preference. The colour, brightness and contrast and various other adjustments have been made to get the most out of that specific image. You can then click the thumbnail of the active image, hold the Cmd key and select another, or multiple, similar images from the filmstrip which will also be highlighted. You can then hover your cursor over the top right of the originally edited image and click the Synchronize icon that appears. Choose which adjustments you want to copy to the other images or simply click Check All and press OK. When you do, all the edits from the first image will be applied to any additionally selected images in the filmstrip.


_ARK00...DR.dng
_ARK0065.CR2


Synchronize

- ☑ Optics
  - ☑ Chromatic Aberration
  - ☑ Lens Profile Corrections
  - ☑ Lens Manual Distortion
  - ☑ Lens Manual Vignetting
- ☑ Geometry
  - ☑ Upright Mode: Off
  - ☐ Upright Transform
  - ☑ Manual Transforms
- ☑ Effects
  - ☑ Grain
  - ☑ Post Crop Vignetting
- ☑ Calibration
- ☑ Process Version
- ☑ Crop
  - ☑ Aspect Ratio
  - ☑ Straighten Angle

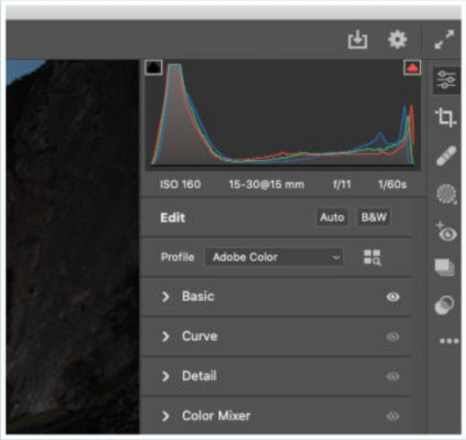

_ARK00...DR.dng
_ARK0065.CR2

Raw Workflow

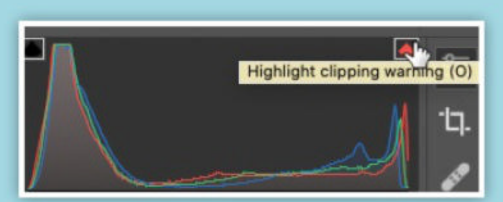
Make your images look their absolute best

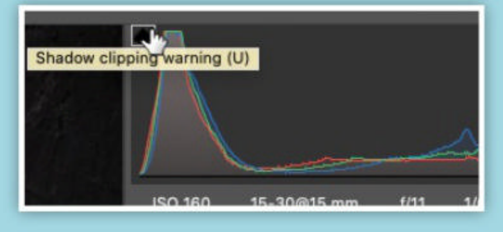
Ask any five professional photographers about the process they use to create their pictures, you'll get five different answers. The amount of processing and adjustment used will vary, depending on the job at hand and the type of final image required, as well as the type of camera used to take the photo and the use to which the photo will be put. There are certain operations that will be common to most photos that you'll want to process, so we'll take a look at a common general purpose workflow that will be suitable for most types of photo. Our example will be using a sunrise photograph taken on a rocky formation down on the coast.

01 If you look at the histogram at the top right of the screen you'll notice that the line at the right (brightest) end of the graph is peaking at both ends and flat in the middle. Ideally the graph should fill the area between the lightest and darkest ends of the range, so we need to slightly reduce the lighter end of the graph without causing under-exposure.

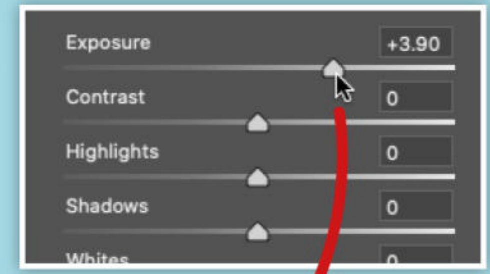


02 To ensure that we don't lose too much detail to highlight clipping, click on the arrow in the top right corner of the histogram window. This turns on the highlight clipping warning. Any over-exposed areas will turn bright red in the image window. Clicking on the left button turns on the shadow clipping warning.

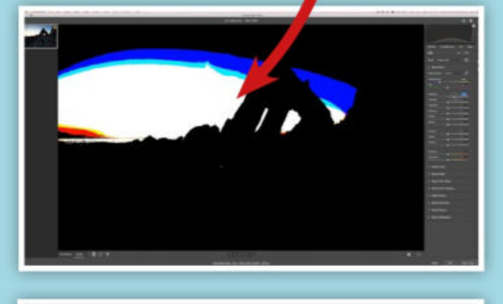


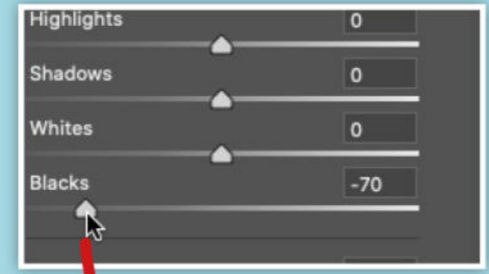


03 In the Basic panel, hold down the Alt key (Option on Mac) and begin to move the exposure slider to the right. With the key held down, all you'll see will be the over-exposed areas. You can do this with any of the first six sliders and it's a good way to make adjustments without going too far.

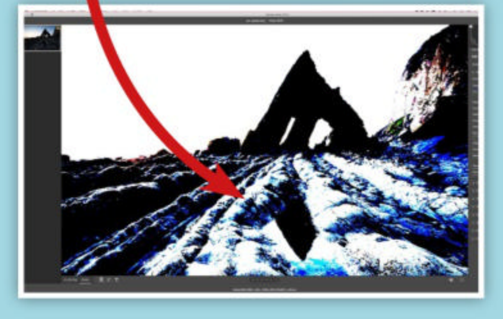


Exposure +3.90
Contrast 0
Highlights 0
Shadows 0
Whites 0

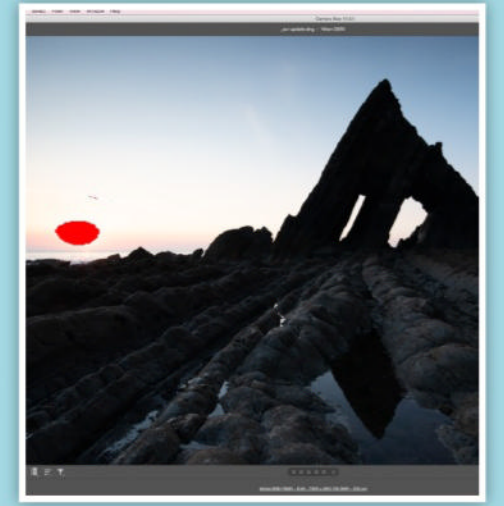


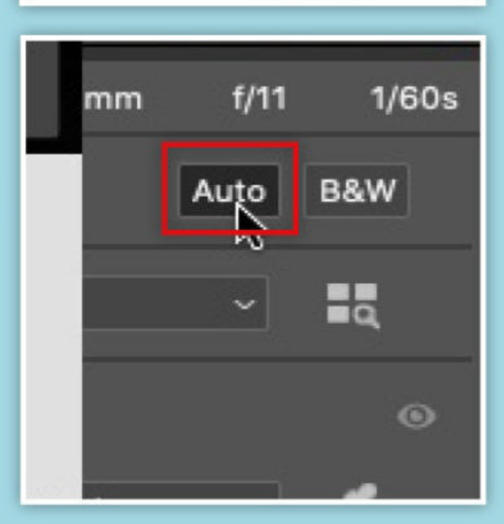


Highlights 0
Shadows 0
Whites 0
Blacks -70

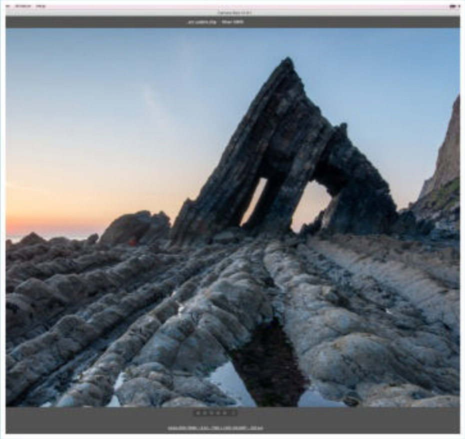


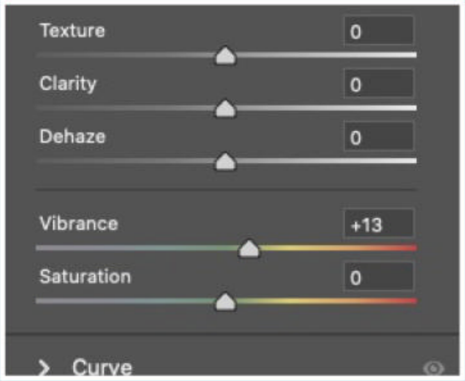
04 We can spend a while carefully adjusting the various sliders by hand to try and equalise the histogram, but the quickest way to get close to the optimum result is to let Camera Raw do the hard work. If you click on Auto the software will automatically adjust the image to produce a good approximation to a balanced exposure. It's probably not going to be ideal, but it will give us a good starting point. You'll notice that the sky along the horizon is over-exposed or very near to it, but that's OK. We're looking for a good spread of tones and that includes white.





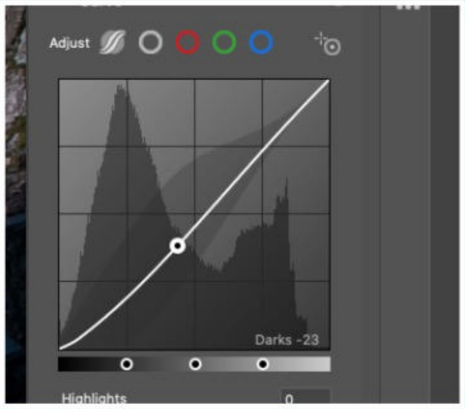
05 The Auto adjustment has made a good job of this particular picture, but for landscape shots a little bit of extra saturation usually looks good, so we'll boost the vibrance and the saturation to get the colours of the sunlight, water and rocks to really pop out.





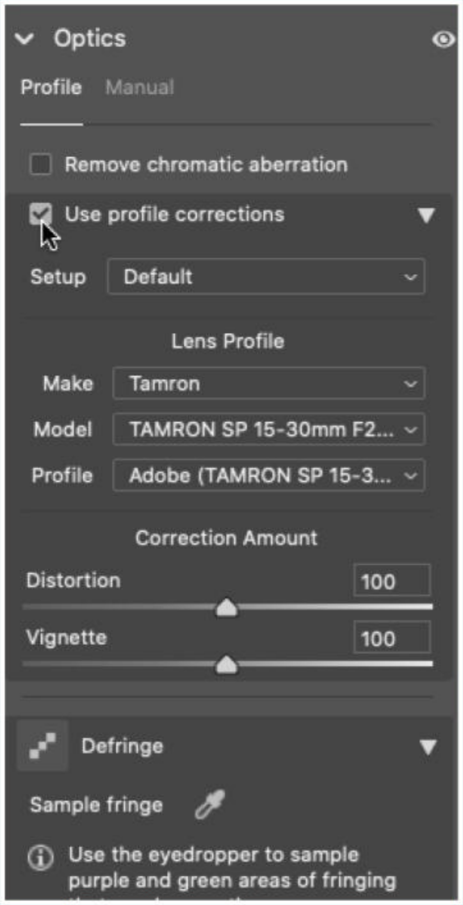
Texture 0
Clarity 0
Dehaze 0
Vibrance +13
Saturation 0

06 Camera Raw also provides another method of adjusting exposure: by altering the tone curve. Although it's no more accurate than using the sliders many people will prefer it because it's nice and simple and gives a good visual representation of what we're doing. It's also a lot harder to burn out the highlights using curves. By adjusting the highlights to decrease a portion of the overexposed areas and by boosting shadows, it is possible to quickly equalise the histogram without losing too much quality.



Darks -23
Highlights 0

07 Camera Raw offers a useful lens correction feature under its Optics panel. The Tamron wide-angle lens used to take this picture is a nice bit of glass, but it's not perfect. Although it's hard to see at a glance, this wide-angle shot does suffer from some pincushion distortion and slight chromatic aberration. Fortunately Camera Raw comes pre-loaded with correction profiles for a huge list of popular lenses, including this one. All you need to do to automatically correct the optical distortion caused by the lens is to check the box Use Profile Corrections. You'll see the change happen to your image immediately.



Optics
Profile
Manual

☐ Remove chromatic aberration
☑ Use profile corrections
Setup: Default

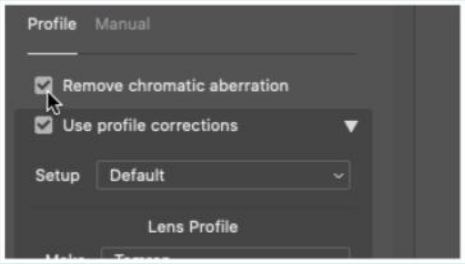
Lens Profile
Make: Tamron
Model: TAMRON SP 15-30mm F2...
Profile: Adobe (TAMRON SP 15-3...

Correction Amount
Distortion 100
Vignette 100

Defringe
Sample fringe

Use the eyedropper to sample purple and green areas of fringing

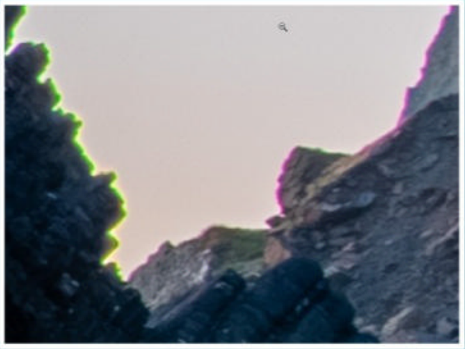
08 Chromatic aberration is just as easy to fix. Click on the Remove Chromatic Aberration button to automatically remove it. You'll need to zoom in near the edge of the frame to see the difference, but you'll notice the effects at once.

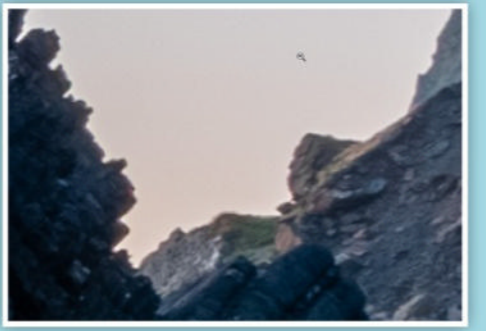


Profile
Manual

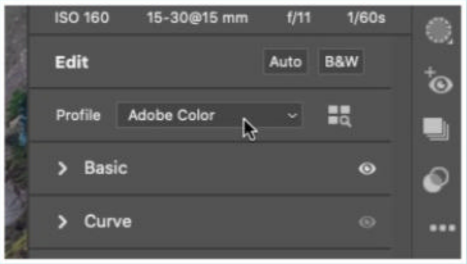
☑ Remove chromatic aberration
☑ Use profile corrections
Setup: Default

Lens Profile





09 The next step is largely a matter of personal taste, but you can also choose to use a preset profile for the colour calibration too. Just below the histogram, click on the Profile panel and from the drop-down menu select your preferred profile. Choose Browse to see more. There are now a number to choose from. This sets the colour rendering profile to the preset.

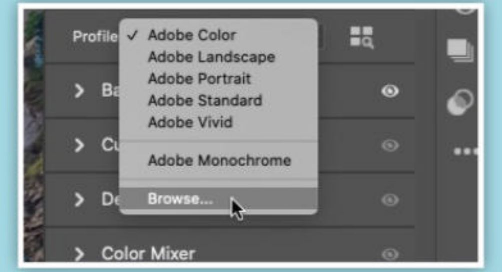


ISO 160 15-30@15 mm f/11 1/60s

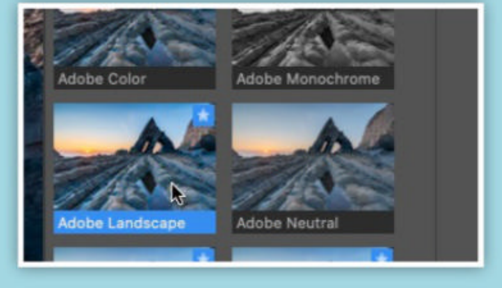
Edit
Auto
B&W

Profile: Adobe Color

Basic
Curve

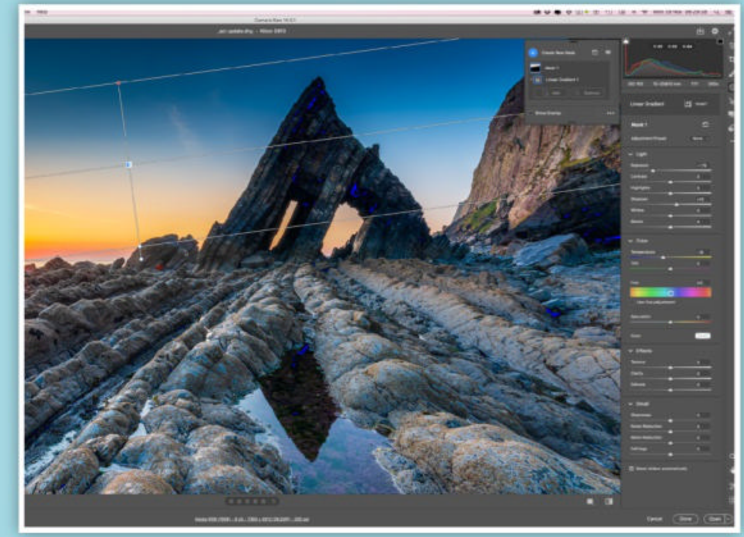


Profile
✓ Adobe Color
Adobe Landscape
Adobe Portrait
Adobe Standard
Adobe Vivid
Adobe Monochrome
Browse...
Color Mixer

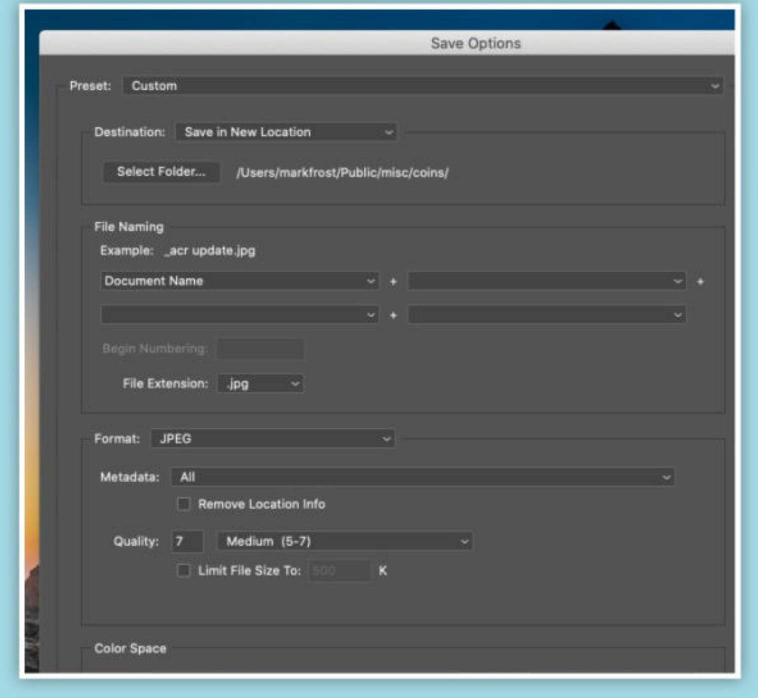


Adobe Color
Adobe Monochrome
Adobe Landscape
Adobe Neutral

10 For this particular image, the sky is a bit lighter than we prefer, but we can easily darken it down a bit by adding a high quality digital graduated filter in Camera Raw. Click on the Masking button in the toolbar on the right edge of the screen and you can add a Linear Gradient. Set the exposure slider between -1.5 or -2, then in the image window drag down from the top of the picture to just below the horizon line to apply the filter. If you hold down the shift key while dragging, it will stay parallel with the top of the frame.



11 Next we have the Save Options. Camera Raw gives you the option to output the processed image in a number of different ways, but which one you use will depend on what you want to do with the finished image. For most purposes the default settings will be ideal, but you may need to select a different colour space and for maximum colour fidelity you can output in 16-bit format. You can also choose an image size different from the native resolution of your camera, but be aware that choosing a larger size doesn't magically create new pixels; the image will be enlarged using a resampling algorithm. If you're planning to print the picture you might also want to look at the sharpening options. When you're happy with your choices, click Save. The picture will be saved according to your preferences.



Save Options

Preset: Custom

Destination: Save in New Location

Select Folder... /Users/markfrost/Public/misc/coins/

File Naming

Example: _acr update.jpg

Document Name +

Begin Numbering:

File Extension: .jpg

Format: JPEG

Metadata: All

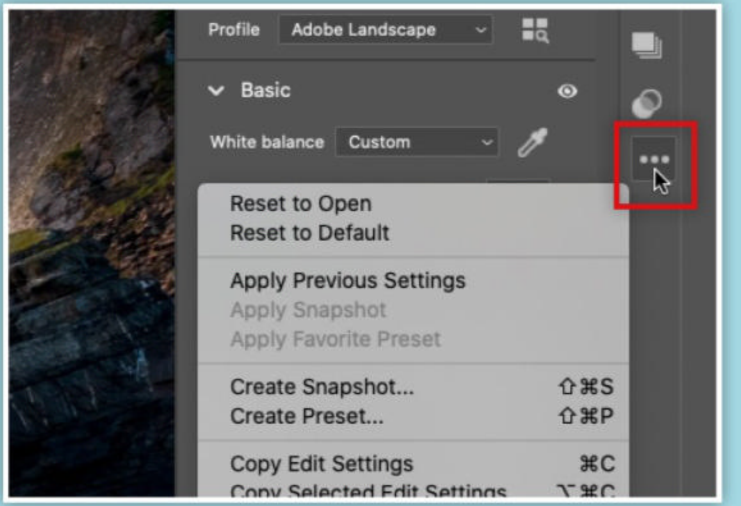
☐ Remove Location Info

Quality: 7 Medium (5-7)

☐ Limit File Size To: 500 K

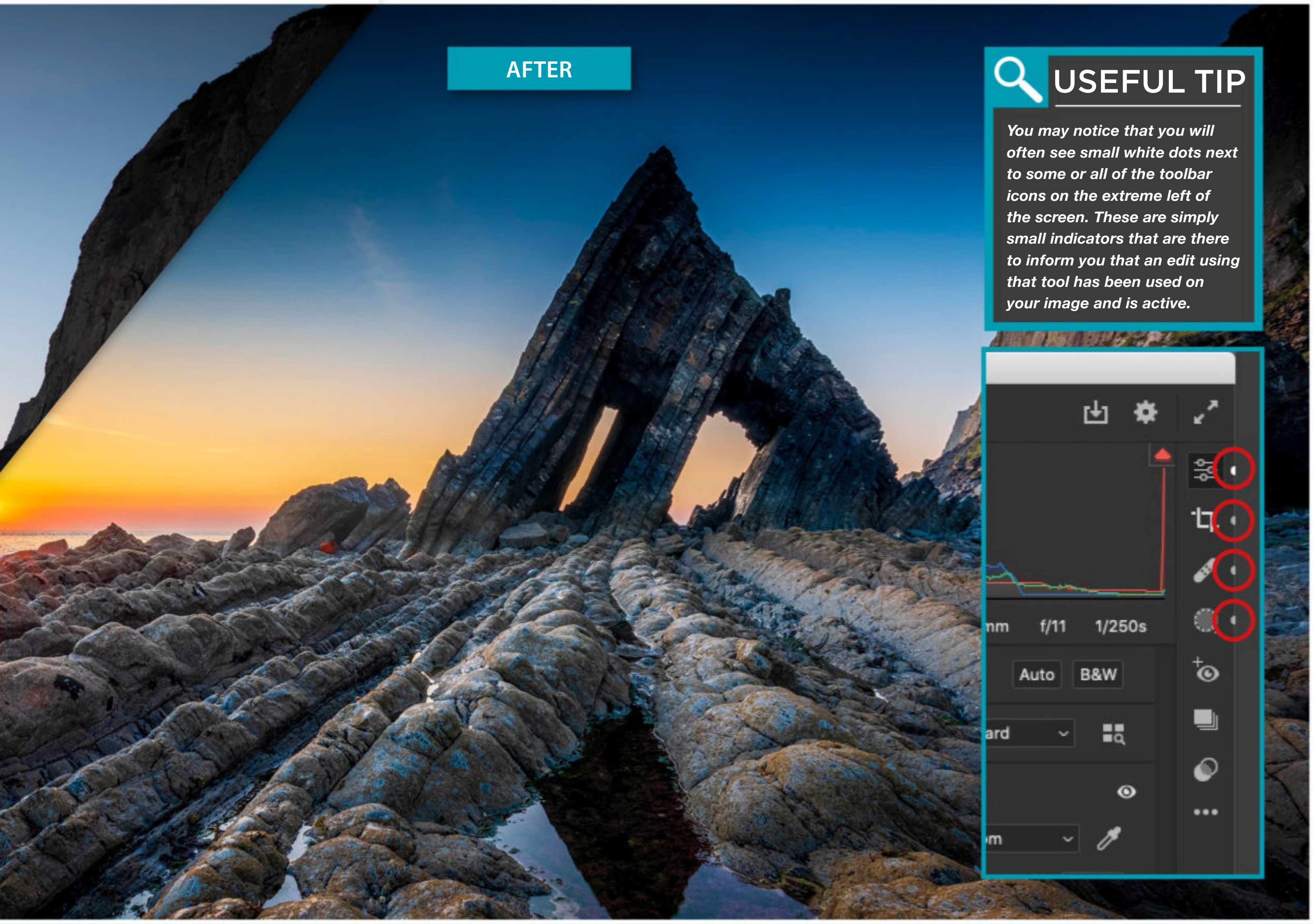
Color Space

12 You also have the option to save a particular group of adjustment settings in order to use them later on other images. You can apply a selection, or all the settings at once, if you wish. Once you have a group of adjustments you want to save, click on the More Image Settings icon in the toolbar to call up the options menu.



Profile: Adobe Landscape

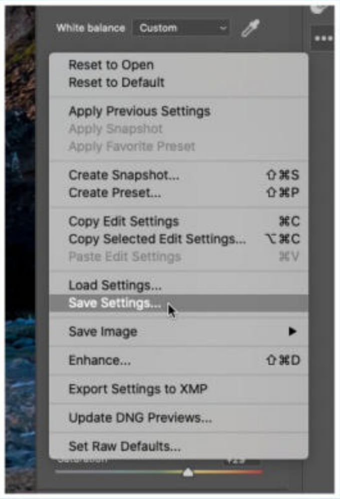
White balance: Custom

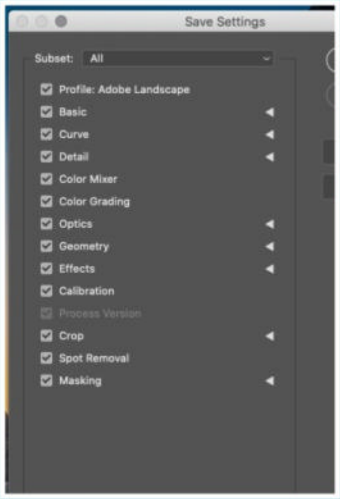

AFTER
mm
f/11
1/250s
Auto
B&W
ard
m

USEFUL TIP

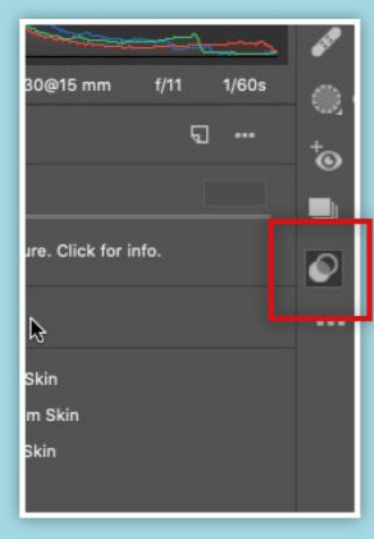
You may notice that you will often see small white dots next to some or all of the toolbar icons on the extreme left of the screen. These are simply small indicators that are there to inform you that an edit using that tool has been used on your image and is active.

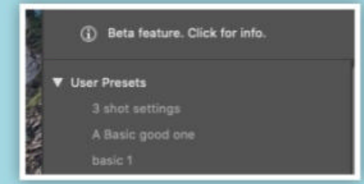
13 From the options menu, choose Save Settings. This will open the Save Settings dialog panel where you can specify which settings can be saved. You can choose to Check All or manually choose by checking or un-checking your preferred adjustments listed in the panel. Click Save and name your Preset. Our example is called ‘New Landscape Preset.xmp’.

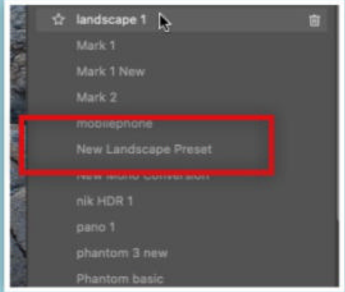

White balance
Custom
Reset to Open
Reset to Default
Apply Previous Settings
Apply Snapshot
Apply Favorite Preset
Create Snapshot... ⇧⌘S
Create Preset... ⇧⌘P
Copy Edit Settings ⌘C
Copy Selected Edit Settings... ⌥⌘C
Paste Edit Settings ⌘V
Load Settings...
Save Settings...
Save Image ▶
Enhance... ⇧⌘D
Export Settings to XMP
Update DNG Previews...
Set Raw Defaults...

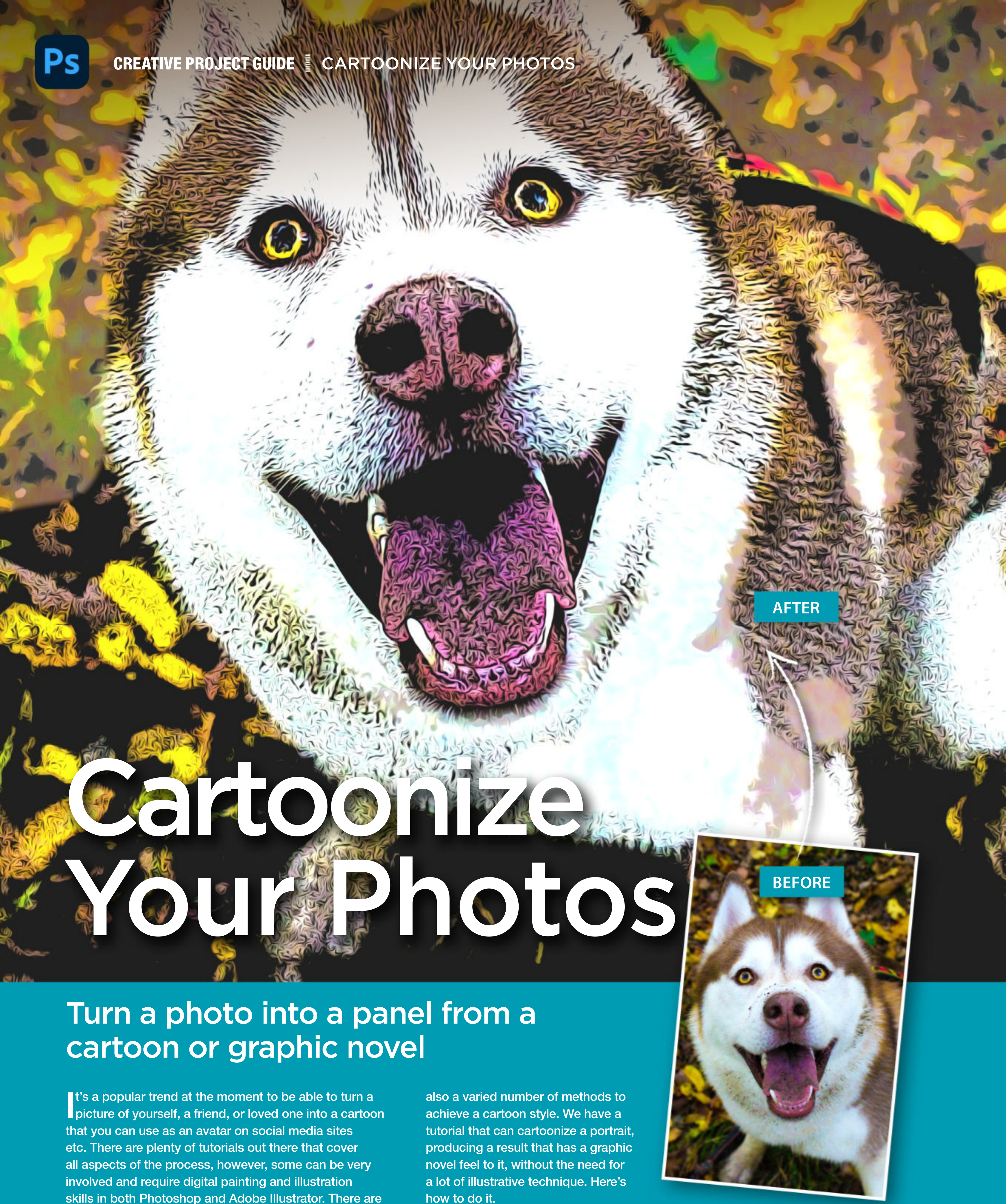

Save Settings
Subset: All
☑ Profile: Adobe Landscape
☑ Basic
☑ Curve
☑ Detail
☑ Color Mixer
☑ Color Grading
☑ Optics
☑ Geometry
☑ Effects
☑ Calibration
☑ Process Version
☑ Crop
☑ Spot Removal
☑ Masking

14 Once saved, the Preset you created is added to the list of User Presets. If you have an image to which you want to apply this Preset, open it in Camera Raw as normal and then scroll down to where ‘New Landscape Preset’ is listed. A real-time display shows the effect it has on your image. If you click it, the adjustments will be applied to the active image.


30@15 mm
f/11
1/60s
ure. Click for info.
Skin
m Skin
Skin


Beta feature. Click for info.
User Presets
3 shot settings
A Basic good one
basic 1

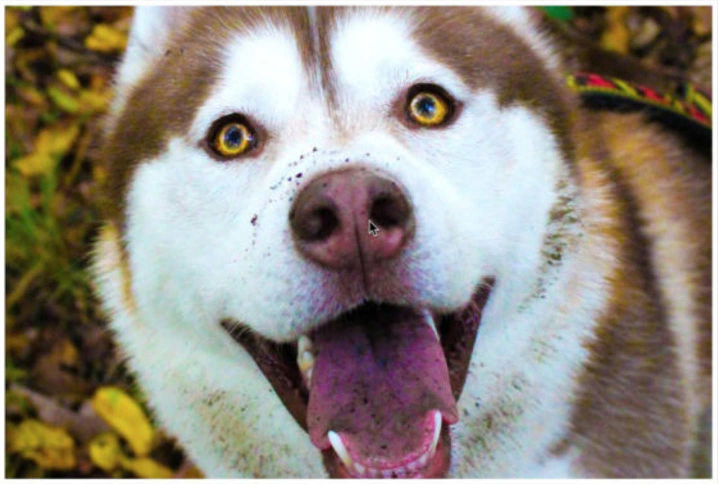

landscape 1
Mark 1
Mark 1 New
Mark 2
mobilephone
New Landscape Preset
New Mono Conversion
nik HDR 1
pano 1
phantom 3 new
Phantom basic



Cartoonize Your Photos

Turn a photo into a panel from a cartoon or graphic novel

It's a popular trend at the moment to be able to turn a picture of yourself, a friend, or loved one into a cartoon that you can use as an avatar on social media sites etc. There are plenty of tutorials out there that cover all aspects of the process, however, some can be very involved and require digital painting and illustration skills in both Photoshop and Adobe Illustrator. There are also a varied number of methods to achieve a cartoon style. We have a tutorial that can cartoonize a portrait, producing a result that has a graphic novel feel to it, without the need for a lot of illustrative technique. Here's how to do it.



01 We have chosen an example portrait of a very surprised-looking husky dog staring directly at camera. The lighting in this shot is sufficiently bright and simple with plenty of contrast and texture and therefore should convert well into our comic book style.

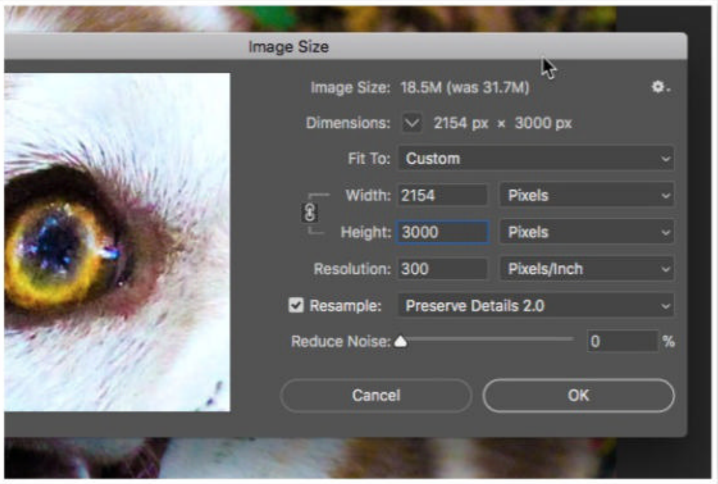
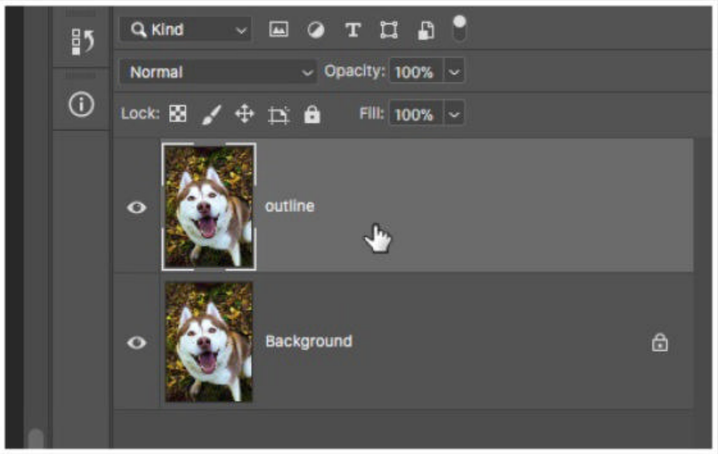


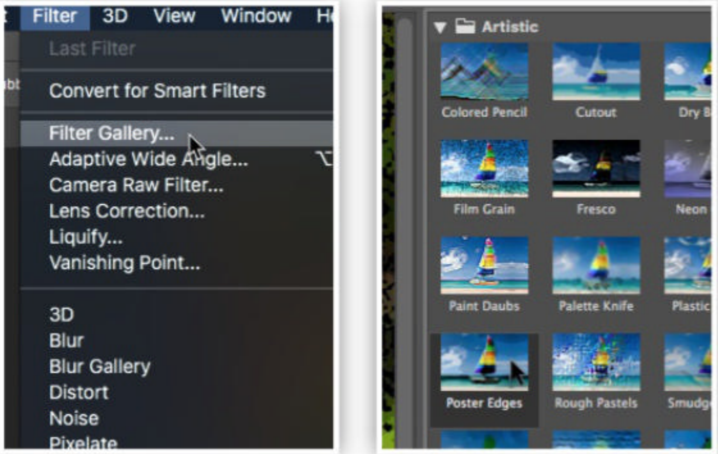
Image Size
Cancel
OK

Image Size: 18.5M (was 31.7M)
Dimensions: 2154 px × 3000 px
Fit To: Custom
Width: 2154 Pixels
Height: 3000 Pixels
Resolution: 300 Pixels/Inch
☑ Resample: Preserve Details 2.0
Reduce Noise: 0 %

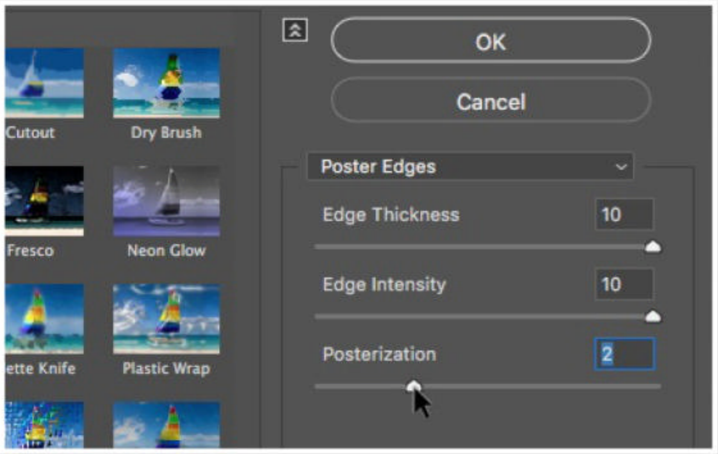
02 Our example image for this tutorial is 2154 pixels wide by 3000 pixels deep and our settings to achieve the cartoon effect are based on this image size. Be aware, if you're using a different size image, your settings will need to account for this.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
outline
Background

03 This technique is quite straightforward and only requires a couple of new layers. Start by pressing Cmd + J to duplicate the background layer and create a new version that sits above the original background. Call this new layer 'outline'.

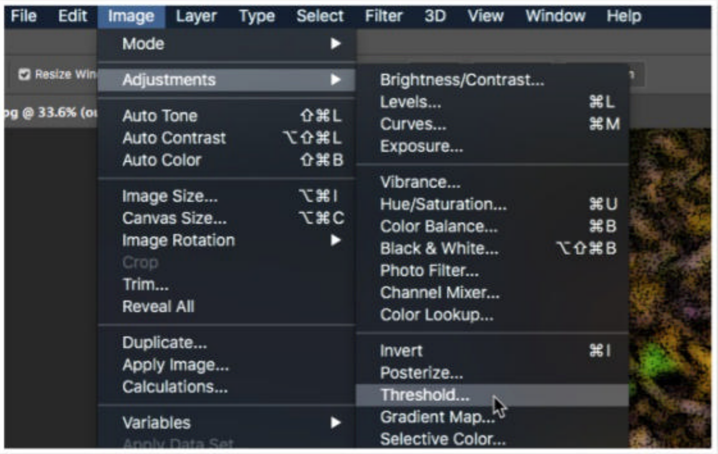

Filter
3D
View
Window
Last Filter
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle...
Camera Raw Filter...
Lens Correction...
Liquify...
Vanishing Point...
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Artistic
Colored Pencil
Cutout
Film Grain
Fresco
Neon
Paint Daubs
Palette Knife
Plastic
Poster Edges
Rough Pastels

04 Make sure that the 'outline' layer is currently active then go to the File menu and choose Filter > Filter Gallery. You are looking for the Artistic section in the right hand panel and in this subfolder is an effect called Poster Edges.

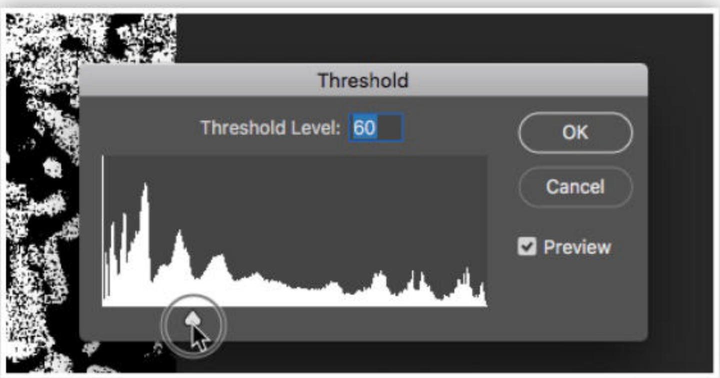

Cutout
Dry Brush
Fresco
Neon Glow
Plastic Wrap
OK
Cancel

Poster Edges
Edge Thickness 10
Edge Intensity 10
Posterization 2

05 Click on the Poster Edges icon and set Edge Thickness to 10, Edge Intensity to 10 and Posterization to 2. The image will update in real time to show you how it looks with those settings, it will now also have black outlines. Click OK when ready.


File
Edit
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Mode
Adjustments
Auto Tone
Auto Contrast
Auto Color
Image Size...
Canvas Size...
Image Rotation
Crop
Trim...
Reveal All
Duplicate...
Apply Image...
Calculations...
Variables
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...

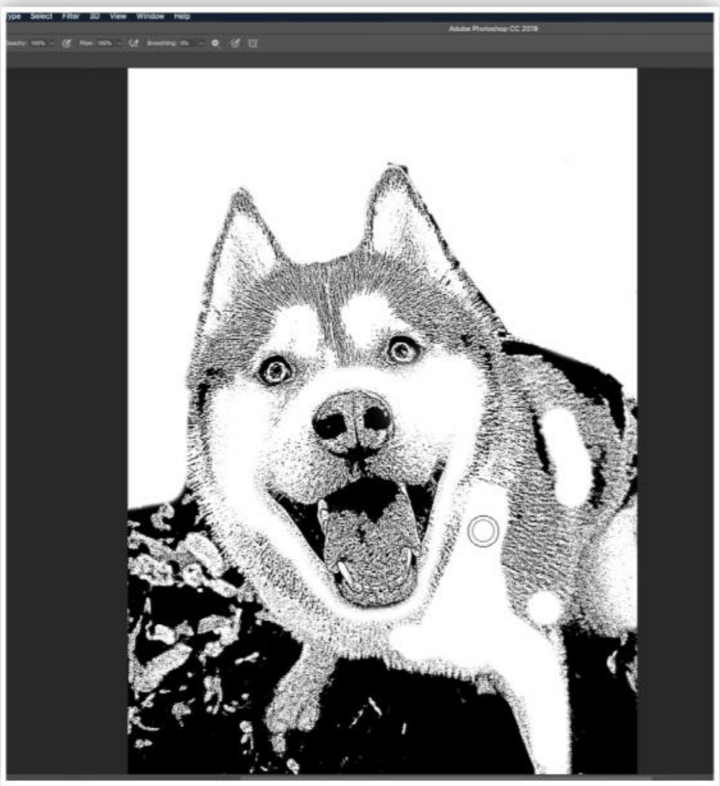
06 Now we have to turn it into a more simplistic black outline image. To do this, go to Image > Adjustments > Threshold. The image will be converted into a bitmap comprised purely of black or white. Now it is starting to look much more graphic.



Threshold

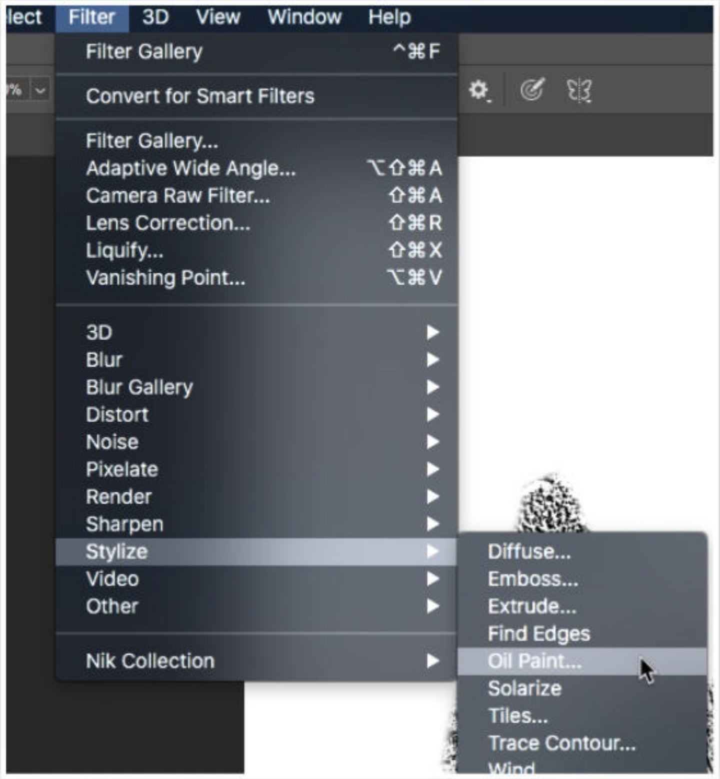
Threshold Level: 60

OK
Cancel
☑ Preview

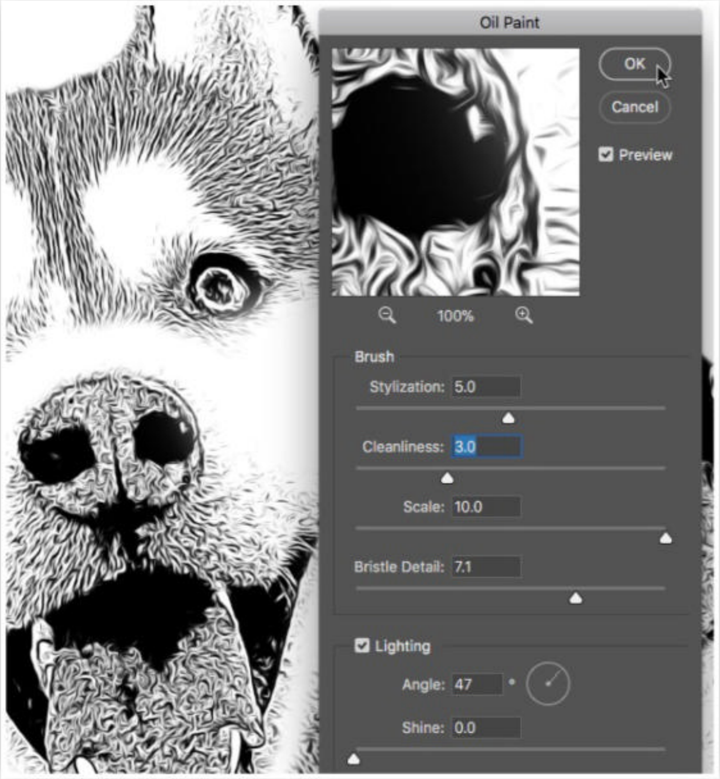


07 Push the Threshold Level slider to the left. As you do, more and more of the image will be removed as it brightens to white, we opted for a Threshold Level setting of 70. Now our portrait is looking more like an ink outline drawing.

08 If you wish, you can take a small white brush and paint out any area of black detail that you feel is too intrusive on your image. We painted out the background and some areas on the dog's chest and head to further simplify it.



lect
Filter
3D
View
Window
Help
Filter Gallery ^⌘F
Convert for Smart Filters
Filter Gallery...
Adaptive Wide Angle... ⌥⇧⌘A
Camera Raw Filter... ⇧⌘A
Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Nik Collection
Diffuse...
Emboss...
Extrude...
Find Edges
Oil Paint...
Solarize
Tiles...
Trace Contour...
Wind



Oil Paint

Brush

Stylization: 5.0

Cleanliness: 3.0

Scale: 10.0

Bristle Detail: 7.1

☑ Lighting

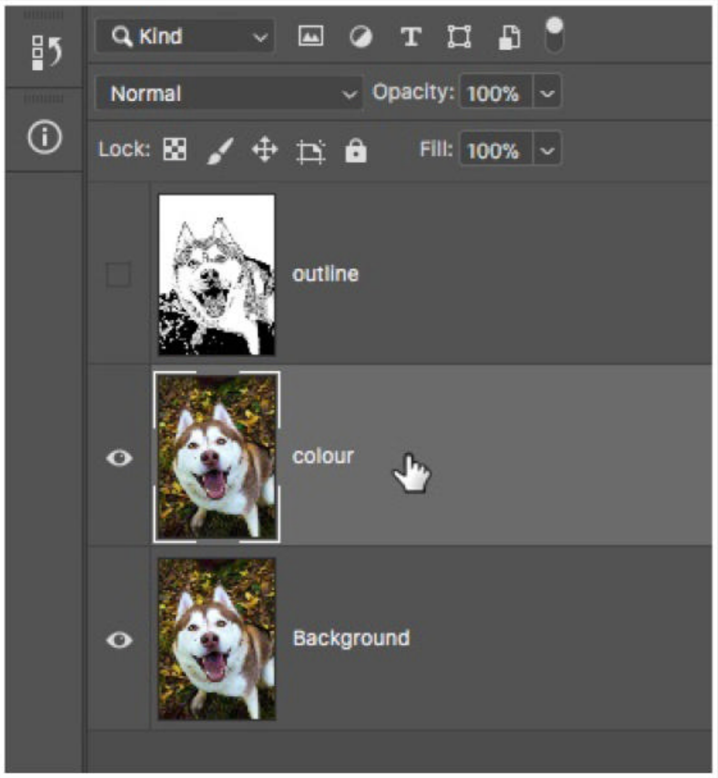
Angle: 47 °

Shine: 0.0

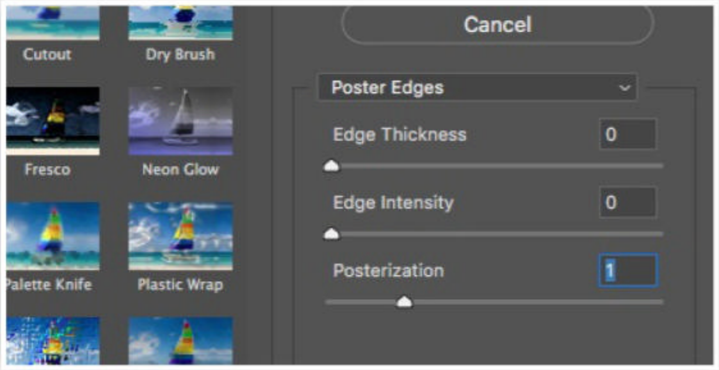
OK
Cancel
☑ Preview
100%

09 At this stage of the process, you may notice that the outline of the subject is a little ragged from the bitmap conversion, that's not a problem, we can smooth it out by going to the File menu and choosing Filter > Stylize > Oil Paint.

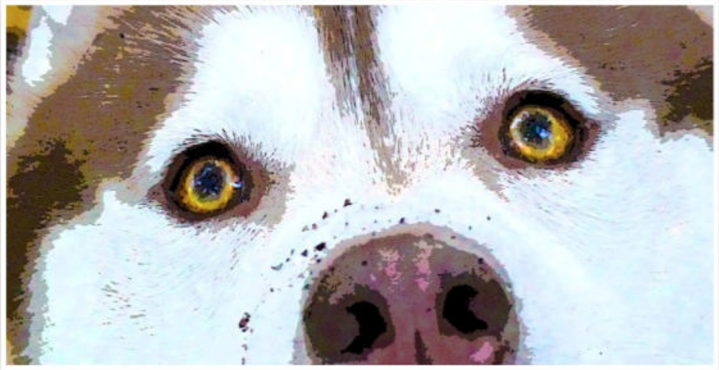
10 Settings are based on personal taste, but we settled with Stylization 5.0 and Cleanliness 3.0 while Shine needs to be 0.0, the other settings can remain at default. As a result, the outlines are smoother, like brush or pen strokes. When you're happy, click OK to apply the effect.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
outline
colour
Background

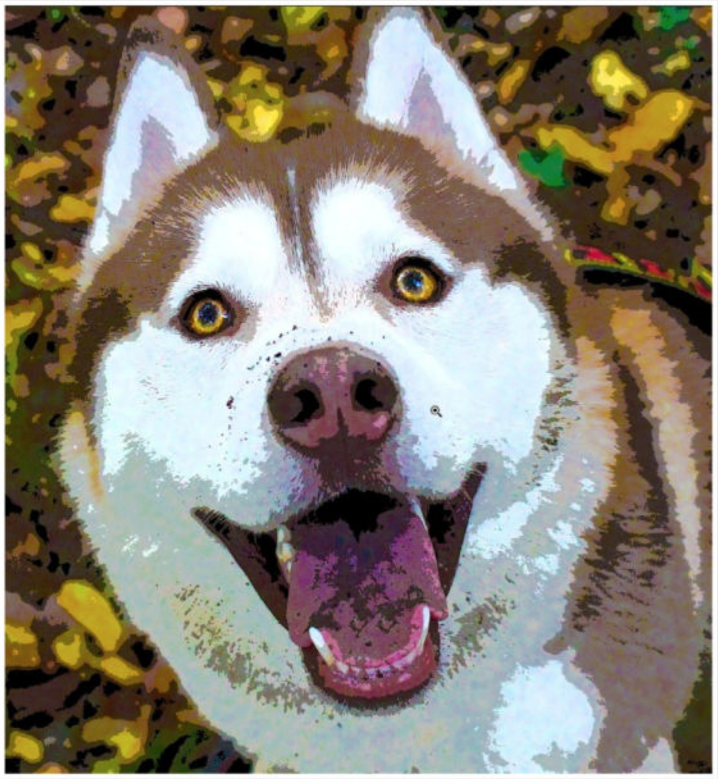
11 Click 'back' on the Background layer and press Cmd + J again, to create another duplicate that sits below the 'outline' layer then call this layer 'colour'. For the moment, you can turn off the 'outline' layer's visibility so we can work on the layer below.


Cutout
Dry Brush
Fresco
Neon Glow
Palette Knife
Plastic Wrap
Cancel

Poster Edges
Edge Thickness 0
Edge Intensity 0
Posterization 1



12 Make sure that the 'colour' layer is active then go to the File menu and choose Filter > Filter Gallery once more before choosing the Poster Edges effect again. This time set Edge Thickness to 0, Edge Intensity to 0 and Posterization to 1.



13 Now, the copy of the image on the 'colour' layer has had the number of colours that are used in the photo reduced to give a more toonish quality. We can enhance that still further in the next step. Click OK to apply the Poster Edges effect.

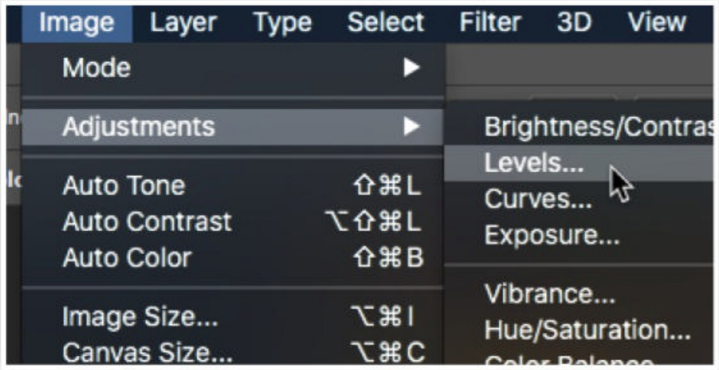
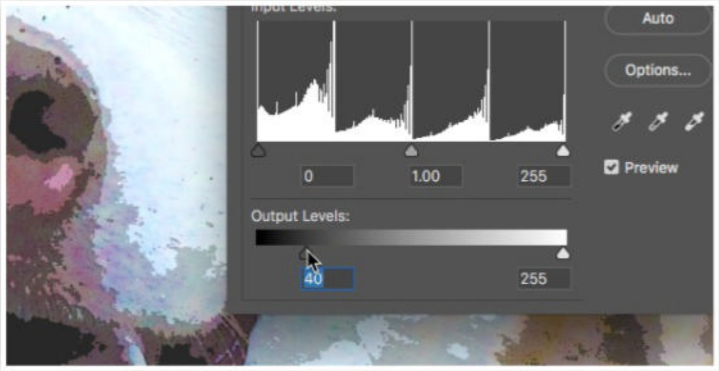


Image
Layer
Type
Select
Filter
3D
View
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Brightness/Contras
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...


Auto
Options...
Preview

Input Levels: 0 1.00 255
Output Levels: 40 255

14 Next, go to Image > Adjustments > Levels (Cmd + L) and pull the Shadows Output Levels slider slightly to the right to reduce the contrast and lighten the image a little. Click OK to continue when you are happy with the adjustments.

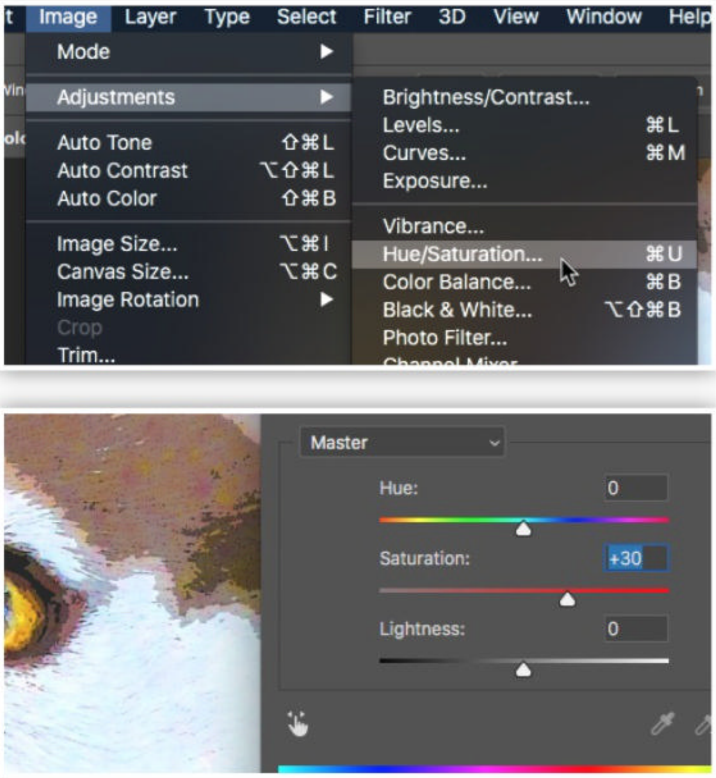


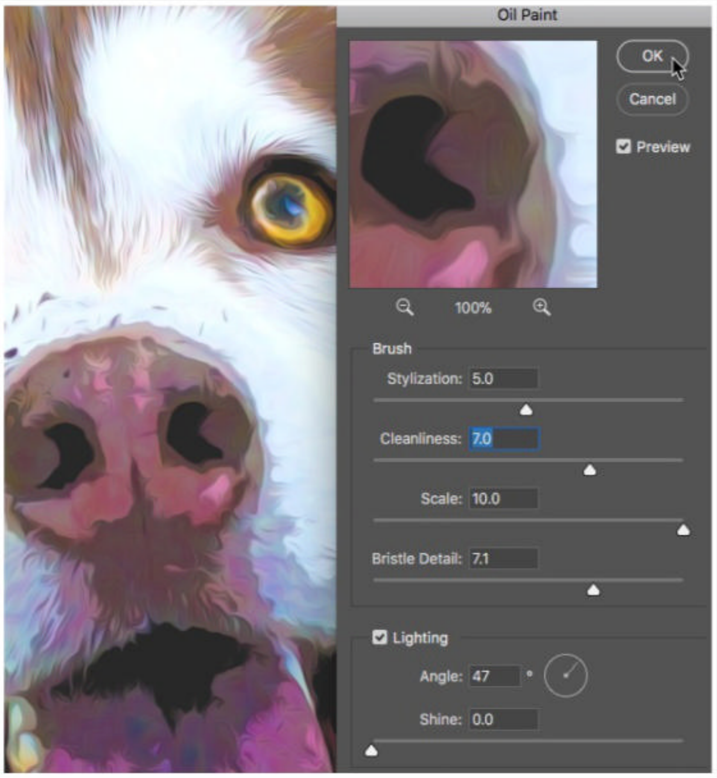
Image
Layer
Type
Select
Filter
3D
View
Window
Help
Mode
Adjustments
Auto Tone ⇧⌘L
Auto Contrast ⌥⇧⌘L
Auto Color ⇧⌘B
Image Size... ⌥⌘I
Canvas Size... ⌥⌘C
Image Rotation
Crop
Trim...
Brightness/Contrast...
Levels... ⌘L
Curves... ⌘M
Exposure...
Vibrance...
Hue/Saturation... ⌘U
Color Balance... ⌘B
Black & White... ⌥⇧⌘B
Photo Filter...
Channel Mixer
Master

Hue: 0

Saturation: +30

Lightness: 0

15 Next, go to Image > Adjustments > Hue/Saturation (Cmd +U) and push the Saturation slider right, to about +30 this will add a lot of vibrancy to the image while making the colours purer and brighter. Click OK to apply the saturation.


Oil Paint
OK
Cancel
☑ Preview
100%
Brush
☑ Lighting

Stylization: 5.0

Cleanliness: 7.0

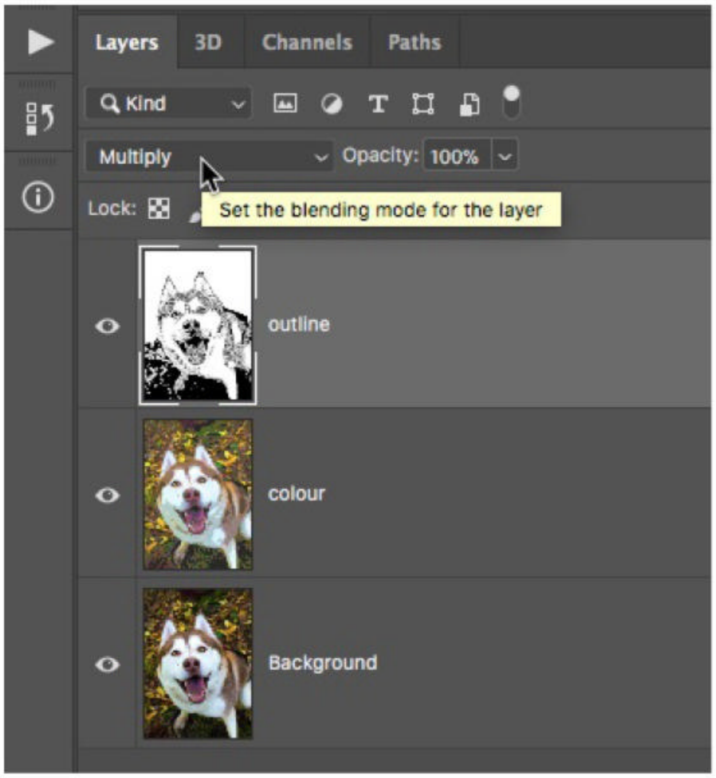
Scale: 10.0

Bristle Detail: 7.1

Angle: 47 °

Shine: 0.0

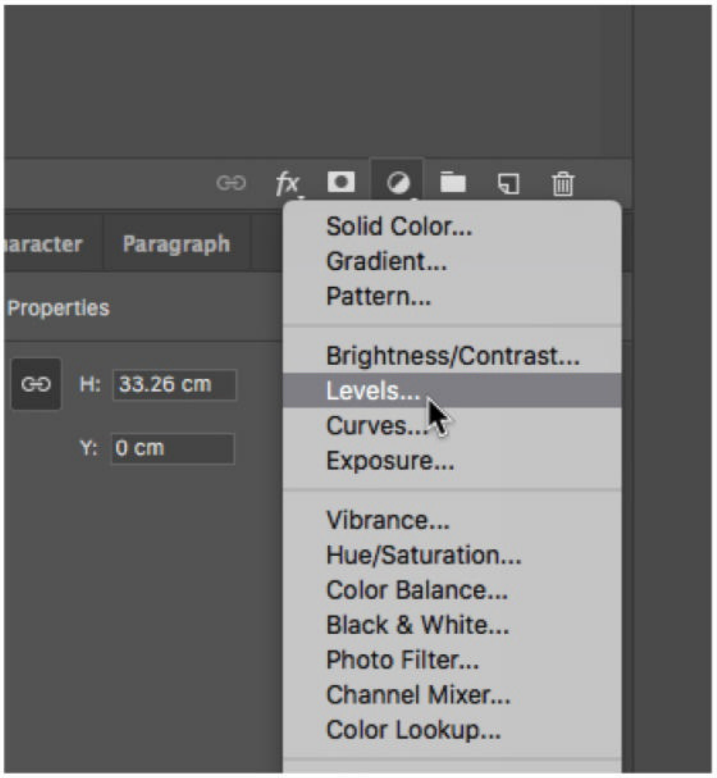
16 Now we need to soften the colour image a little. Go to Filter > Stylize > Oil Paint and this time make the Stylization 5.0, Cleanliness 7.0 and set Shine at 0.0. This creates a brushed feel to the image while remaining quite graphic. Click OK when ready.


Layers
3D
Channels
Paths
Kind
Lock:
Set the blending mode for the layer
outline
colour
Background

Multiply

Opacity: 100%

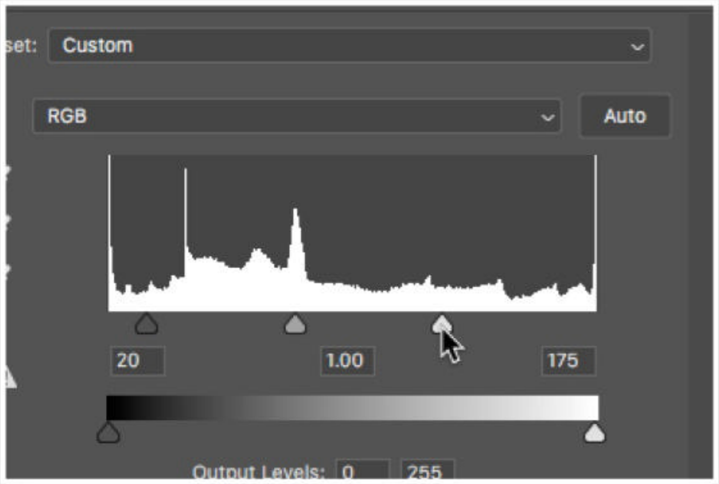
17 Back in the layers palette, turn on the visibility of your 'outline' layer and then set its blend Mode to Multiply. When you do, the black outline blends with the colour image below, the white areas disappear and your cartoon character appears.


aracter
Paragraph
Properties
Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...

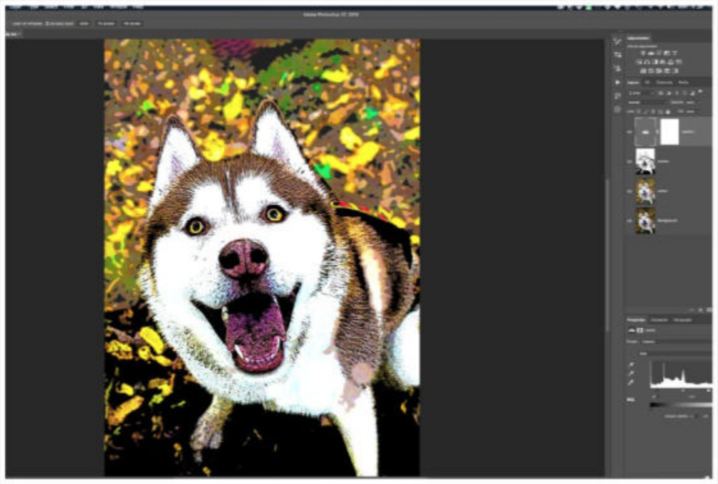
H: 33.26 cm

Y: 0 cm

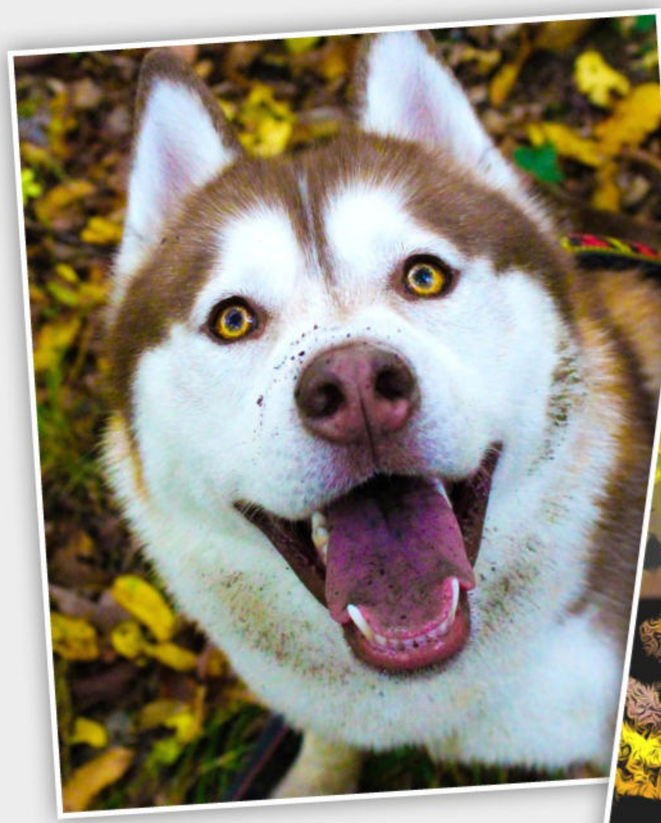
18 The next step is purely optional, but if you want to you can adjust the brightness and contrast of the image a lot more to enhance the cartoon feel. Click on the Create New Adjustment Layer button and choose Levels from the menu.

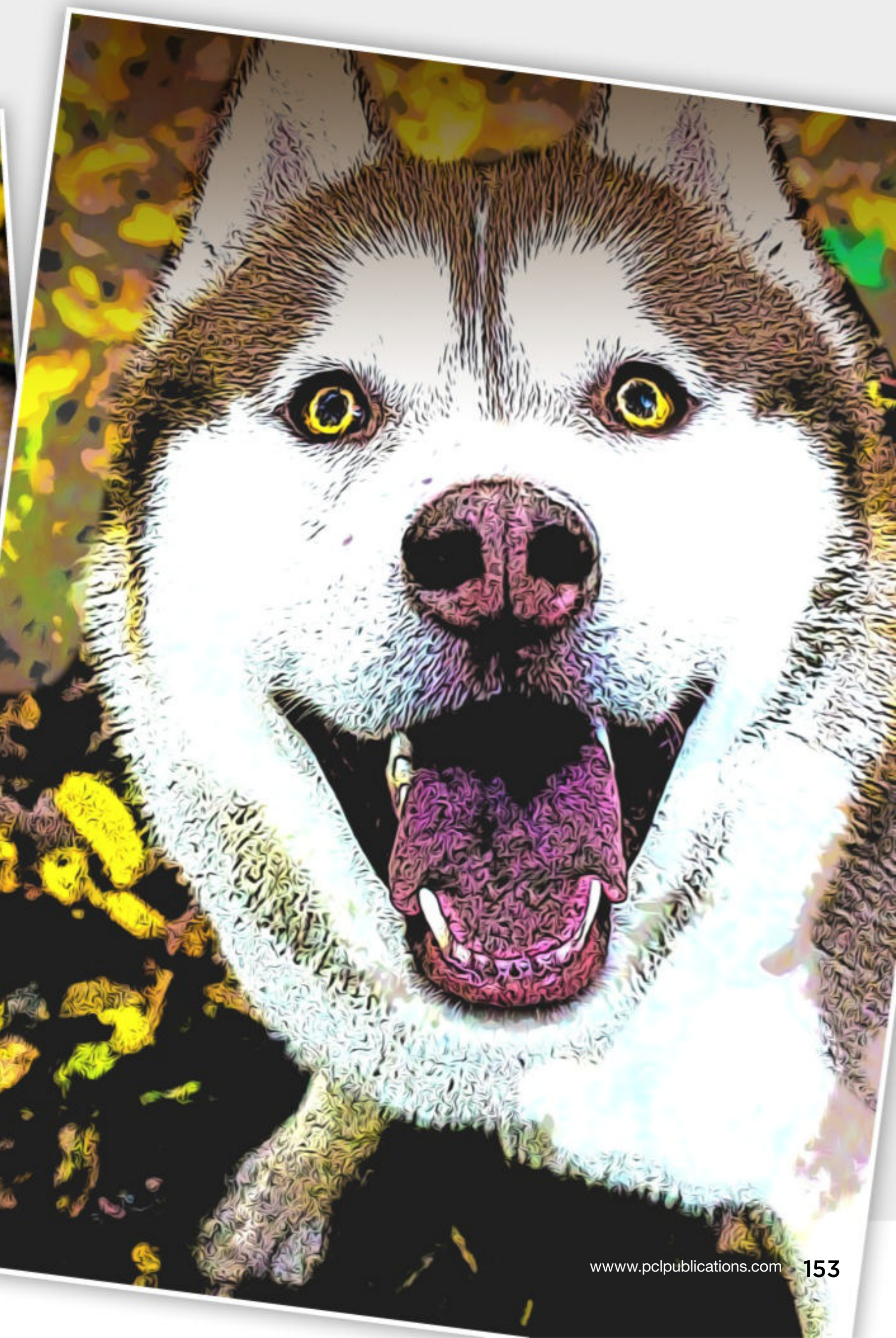


19 A new adjustment layer called ‘Levels 1’ will be added, make sure it is at the top of the layer stack. If you pull the Shadows and Highlights sliders towards the centre of the histogram, you will add contrast and a little more punch to the image.



20 After just a few simple steps, your cartoon image is completed. Your photo has been transformed and you now have a character that is ready to take its place in a graphic novel, cartoon strip, or just as a simple toon avatar.





Cartoon capers in Photoshop

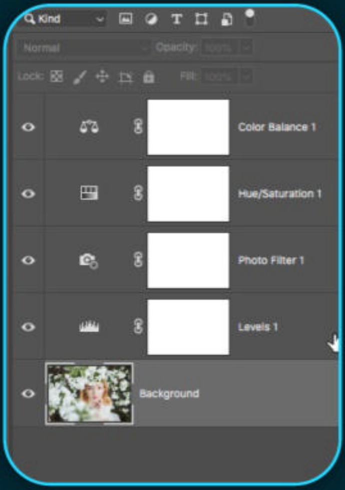
A great idea for graphic portraits and toon characters.

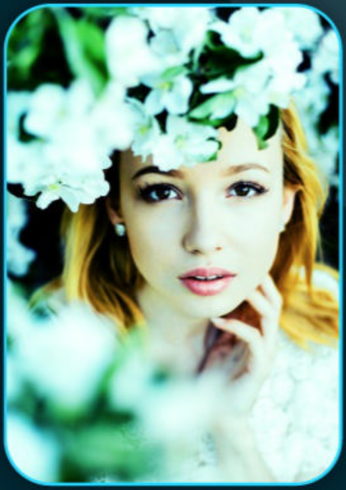
AFTER
BEFORE

MEGA TIP

Combine Adjustment Layers

Combine multiple adjustment layers and then combine them into one effect. That way, you can then use this combination on any other image, so it has the same look and feel.


Kind
Normal
Opacity:
Lock:
Fill:
Color Balance 1
Hue/Saturation 1
Photo Filter 1
Levels 1
Background



01 With your base image active, go to the bottom of the layers palette and click on the Create New Fill Or Adjustment Layer button. From the dropdown menu that appears, you can start choosing various adjustments to alter the tone and colour of the original image.

02 This example used four adjustment layers to get the final look that we liked. Now, if you wanted to transfer that same look to a separate image, it would normally mean having to replicate all the adjustment layers you've used for the original image and apply them to the new one.

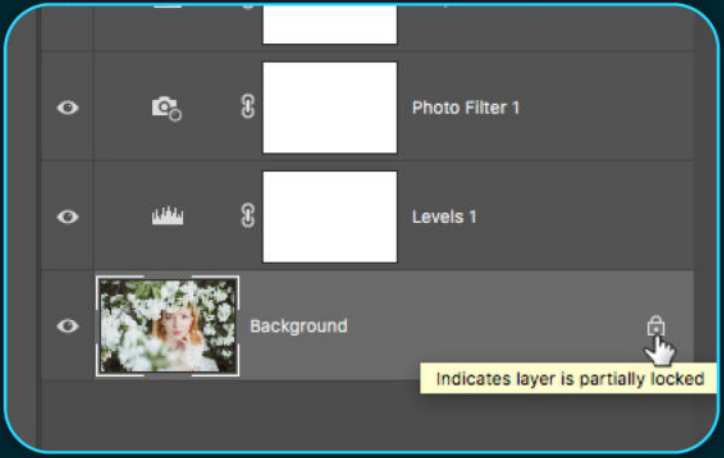
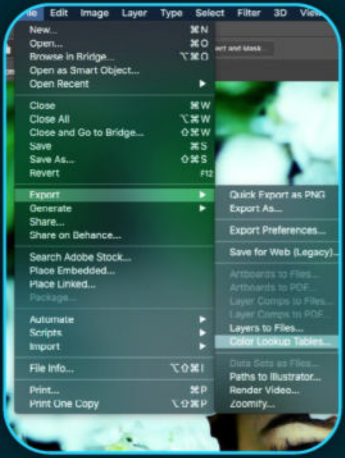
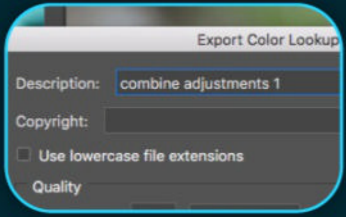


Photo Filter 1
Levels 1
Background
Indicates layer is partially locked


Edit
Image
Layer
Type
Select
Filter
3D
View
New...
Open...
Browse in Bridge...
Open as Smart Object...
Open Recent
Close
Close All
Close and Go to Bridge...
Save
Save As...
Revert
Export
Generate
Share...
Share on Behance...
Search Adobe Stock...
Place Embedded...
Place Linked...
Package...
Automate
Scripts
Import
File Info...
Print...
Print One Copy
Quick Export as PNG
Export As...
Export Preferences...
Save for Web (Legacy)...
Artboards to Files...
Artboards to PDF...
Layer Comps to Files...
Layer Comps to PDF...
Layers to Files...
Color Lookup Tables...
Data Sets as Files...
Paths to Illustrator...
Render Video...
Zoomify...

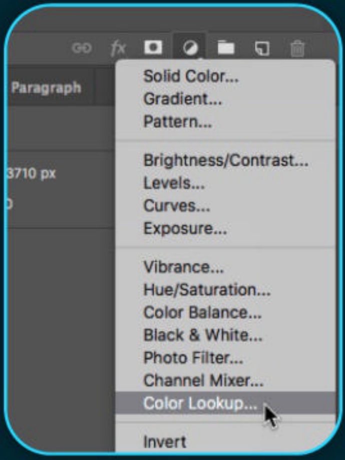

Export Color Lookup
Use lowercase file extensions
Quality

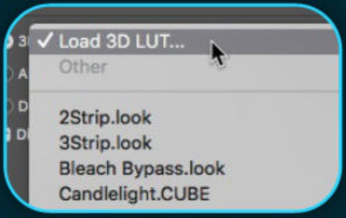
Description: combine adjustments 1

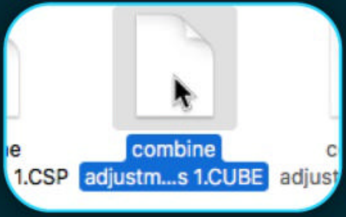
Copyright:

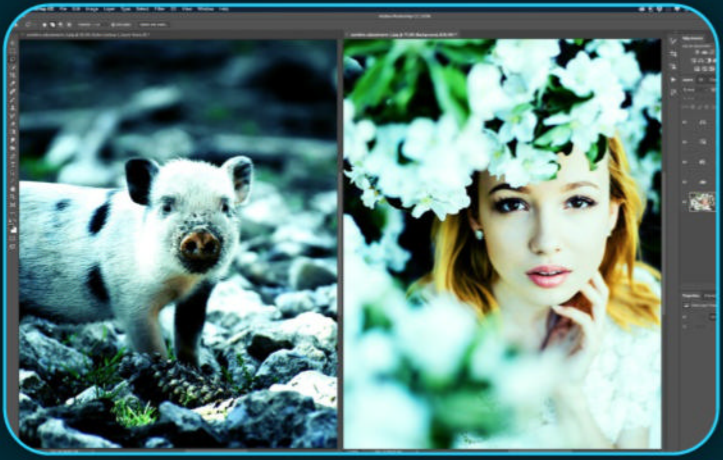
03 However, we can actually combine all four adjustments and turn it into a single effect that can be applied to any other image without the need for multiple adjustment layers. One thing to be aware of before you start, is that your current document must have a locked background layer.

04 Go to File > Export > Color Lookup Tables and type a filename for your combined effect. You can choose from a number of Formats and then click OK to save it to a folder of your choice. Then you'll need to open up a new image to which you want your newly created effect applied.


Paragraph
3710 px
Solid Color...
Gradient...
Pattern...
Brightness/Contrast...
Levels...
Curves...
Exposure...
Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...
Invert


✓ Load 3D LUT...
Other
2Strip.look
3Strip.look
Bleach Bypass.look
Candlelight.CUBE


1.CSP
combine adjustm...s 1.CUBE
adjust



05 Click on the Create New Fill Or Adjustment Layer button and select Color Lookup to add a new adjustment layer. From the 'Color Lookup 1' layer's properties, select Load 3D LUT and navigate to where you saved your file in the previous step. If you saved multiple formats, CUBE is a popular choice.

06 The image will now have its colours remapped by the 'Color Lookup 1' adjustment layer, using the CUBE file you selected as its guide. The image will take on a completely new look that will match the style of your original, without the need for many adjustment layers.

Photoshop Plugins Round-up

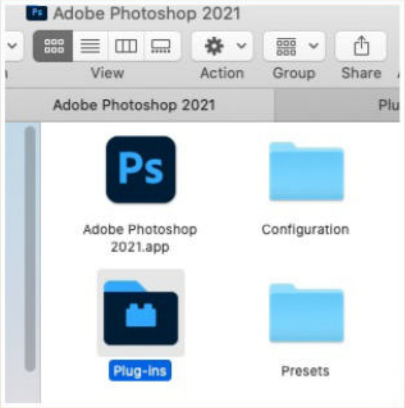
Plugins are small, self-contained programs that add extra effects and workflow possibilities to the Photoshop toolset. Plugins can simply be a single effect added to your image. They can also be something more complex, like a self-contained mini editor. Let's take a look at some of the more notable plugins available for Photoshop at the moment.

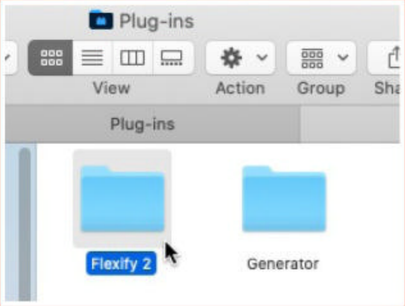
Get switched on with plugins

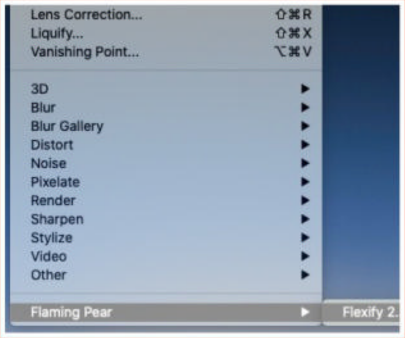
As we've already noted, there are so many plugins available, it can be a chore to wade through them all to figure out what is best for you. Moreover, you need to be aware of what versions of Photoshop any particular plugin is compatible with. Some are fairly universal, others may need updated plugins. When purchasing, double-check version numbers to avoid disappointment. Before we dive in and regale you with some prime plugin choices, we thought we'd cover the main question asked by anyone new to plugins. If you've downloaded one, you then have to install it; but how do you do that? Well, there are in fact a couple of ways you can approach it, and it's pretty easy, so here we go.

Manual install

First things first is to download your plugin. It may be in a compressed format such as a zip file. Unpack the ZIP file. Then copy the unpacked folder. Then you need to navigate to the folder that contains the Photoshop plugins. Paste your copied plugin into Photoshop's plugins folder. Start your version of Photoshop. Click on the Filter menu. At the bottom should be the name of the plugin you just pasted into Photoshop's plugins folder. Click it to open and enjoy.

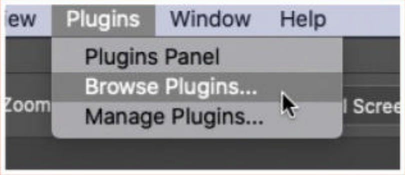

Adobe Photoshop 2021
View
Action
Group
Share
Adobe Photoshop 2021
Adobe Photoshop 2021.app
Configuration
Plug-ins
Presets

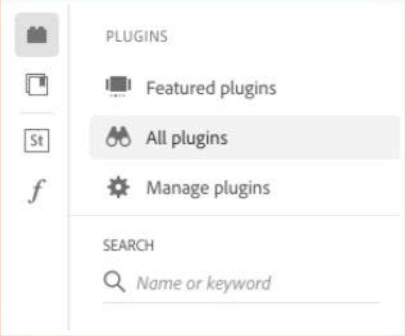

Plug-ins
View
Action
Group
Plug-ins
Flexify 2
Generator

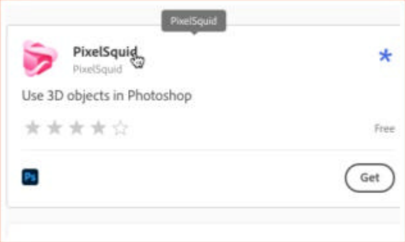

Lens Correction... ⇧⌘R
Liquify... ⇧⌘X
Vanishing Point... ⌥⌘V
3D
Blur
Blur Gallery
Distort
Noise
Pixelate
Render
Sharpen
Stylize
Video
Other
Flaming Pear
Flexify 2

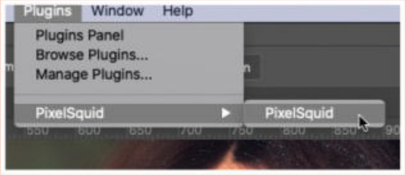
Photoshop install

The latest versions of Photoshop CC lets you browse, install and manage plugins from a handy interface. From the top menu, select Plugins > Browse Plugins. This will bring up your Creative Cloud app. Here you can browse for free or paid plugins and install them with ease. For example, we clicked on the PixelSquid 3D objects browser. You can view details about the plugin of your choice and then download it. Once downloaded, you can go back to the plugins menu and your downloaded plugin will be displayed at the bottom. Click on it to activate it. That's all there is to it.


Plugins
Window
Help
Plugins Panel
Browse Plugins...
Manage Plugins...

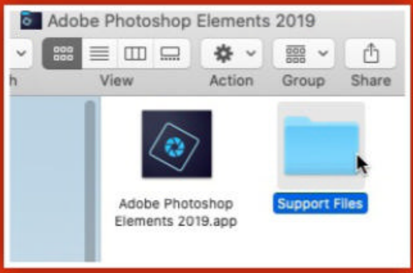

PLUGINS
Featured plugins
All plugins
Manage plugins
SEARCH
Name or keyword

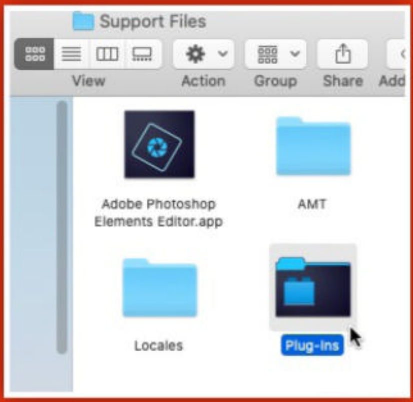

PixelSquid
PixelSquid
Use 3D objects in Photoshop
Free
Get

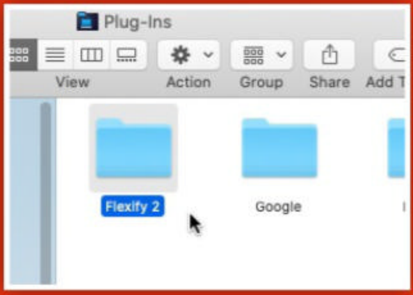

Plugins
Window
Help
Plugins Panel
Browse Plugins...
Manage Plugins...
PixelSquid
PixelSquid

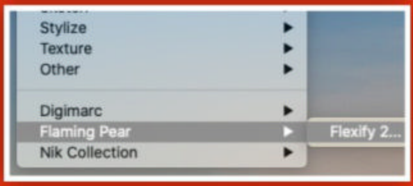
Elements install

Installing plugins on Elements is a similar process to Photoshop's manual install. In this case, the target plugins folder is found within the Adobe Photoshop Elements Support Files folder. Paste your downloaded plugin there and restart Elements. The new plugin should be visible at the bottom of the Filter menu.


Adobe Photoshop Elements 2019
View
Action
Group
Share
Adobe Photoshop Elements 2019.app
Support Files

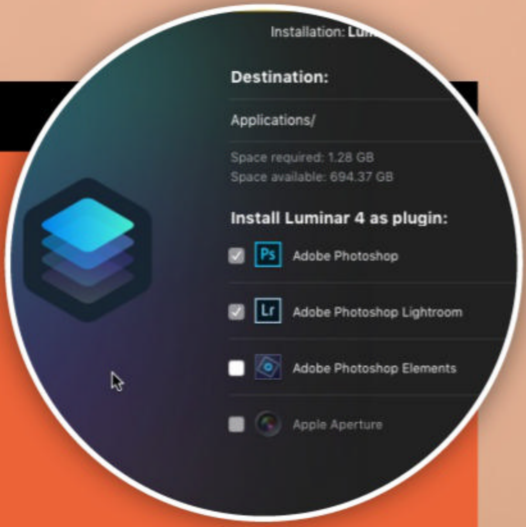

Support Files
View
Action
Group
Share
Add
Adobe Photoshop Elements Editor.app
AMT
Locales
Plug-Ins


Plug-Ins
View
Action
Group
Share
Flexify 2
Google


Stylize
Texture
Other
Digimarc
Flaming Pear
Nik Collection
Flexify 2...

Luminar 4

30 day money back period. £81 for 1 license.



Installation: Lu

Destination:

Applications/

Space required: 1.28 GB
Space available: 694.37 GB

Install Luminar 4 as plugin:

- ☑ Adobe Photoshop
- ☑ Adobe Photoshop Lightroom
- ☐ Adobe Photoshop Elements
- ☐ Apple Aperture

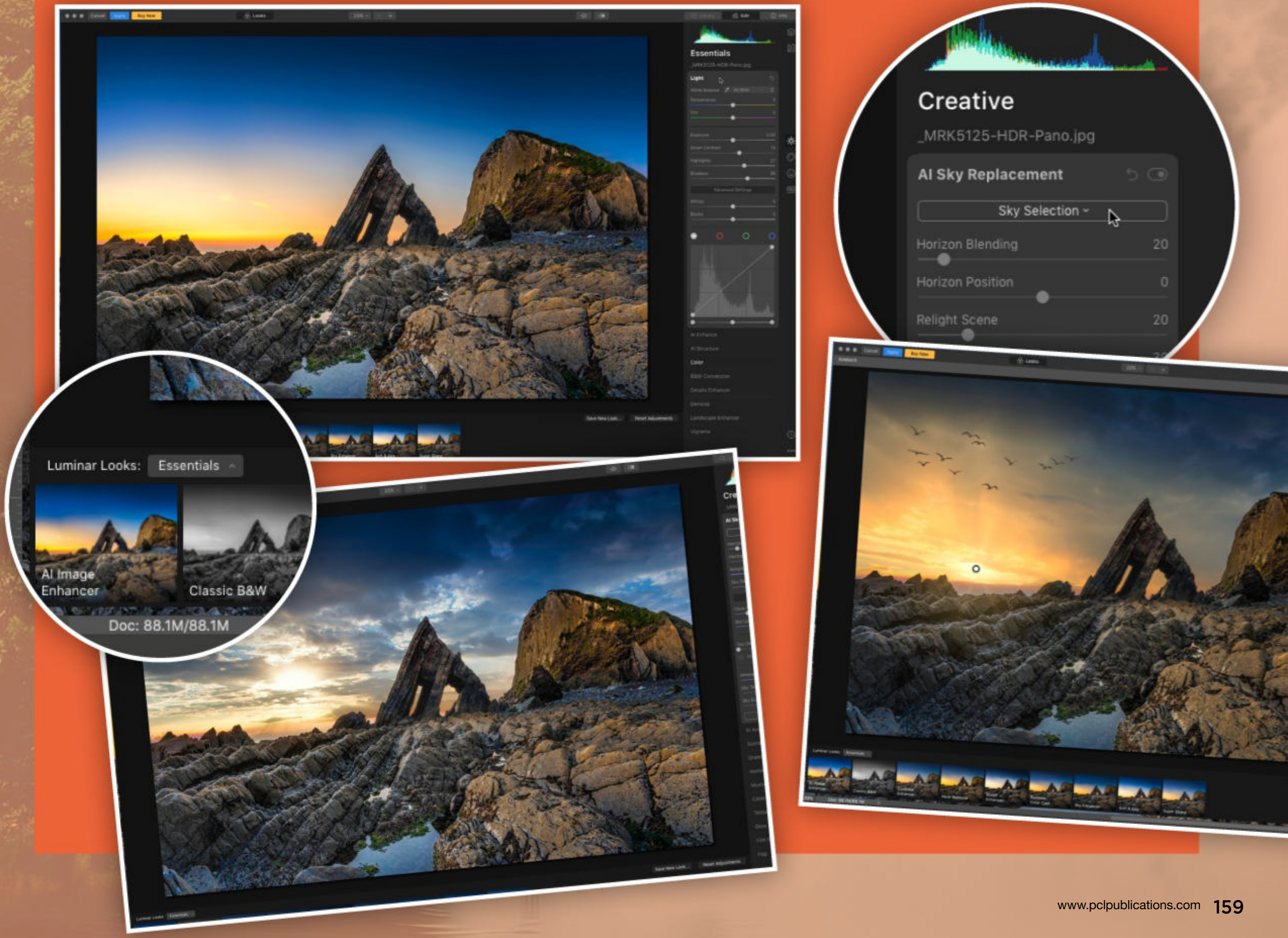
This is a fully featured creative photo editor, and a powerful one at that. Luminar is designed to work as either a standalone product or as a plugin for Photoshop and Lightroom. It is a photo editor, browser and raw processing application, all in one. It is packed with impressive tools to turn your favourite photos into creative works of art. Luminar is designed to be as intuitive as possible, meaning you can fire it up and master its controls very quickly. The learning curve is not too steep and you can spend more time creating, rather than scratching your head wondering what to do next.

Moreover, Luminar is not a subscription-based product. You pay for it outright and then it's yours. At £81, it represents a good deal considering how much you get for such a relatively small outlay.

At its simplest, it is a powerful, raw processing application much like Lightroom, offering non-destructive edits and endless methods of image adjustment. Beyond that, Luminar comes into its own by offering a wealth of creative options and manipulation tools that will keep you busy for ages. You can use the browser to organise your photos and then begin work on your chosen edit. Using the AI Sky Replacement Tool, you can instantly change a sky to better suit the mood of the picture. The algorithms built into the application can accurately drop a new sky into your photo, taking care not to remove small details like leaves and grass. If you want, you can even relight the scene for a totally new look. All the effects you bring to bear on your images can be added as layers, which gives you a lot of control and non-destructive editing to boot.

Portrait photographers also have an amazing set of tools to enhance their subjects, with AI Skin Enhancer and Portrait Enhancer. It can quickly and accurately remove unwanted blemishes, but preserves all the important stuff like pores and hair. Again, clever algorithms save you time. No complex masking is needed, but you have the option to tweak any of the edits if you want.

With Luminar, you can drop additional objects into your photos, add sunrays, or just extract as much detail from an image as you desire. If you have unwanted objects in a photo, then the Erase tool will make short work of removing them. Add to that a noise reduction tool, a large number of creative presets called 'Looks' and a landscape enhancer, you have a powerful photo editor on your hands that could have a major impact on how you approach your workflow.



Creative

_MRK5125-HDR-Pano.jpg

AI Sky Replacement

Sky Selection

Horizon Blending 20

Horizon Position 0

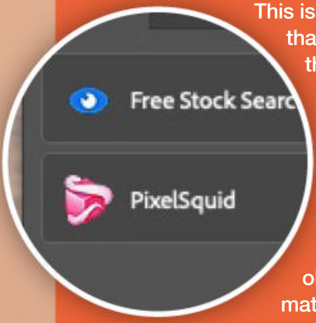
Relight Scene 20

Luminar Looks: Essentials

Doc: 88.1M/88.1M

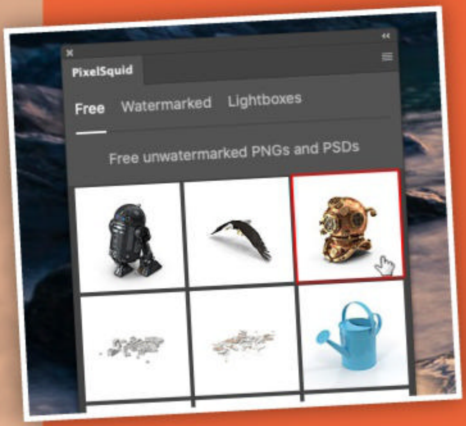
PixelSquid

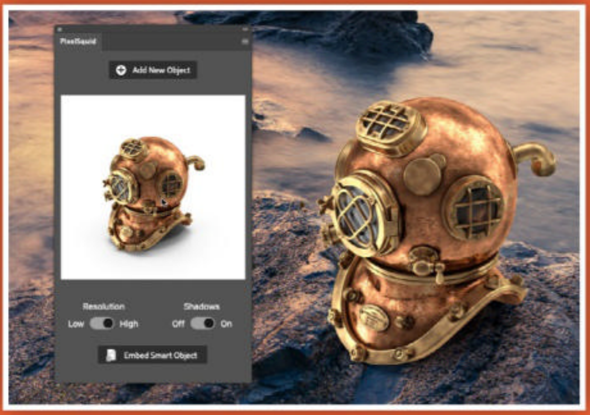
Free with limited object choices. $199 per year for access to all 3D assets.

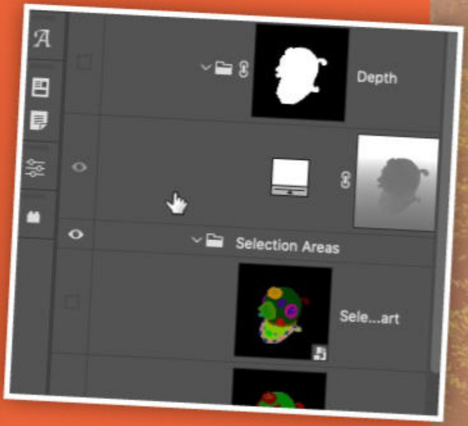

Free Stock Searc
PixelSquid

This is a 3D asset browser that gives you access to the tens of thousands of design objects PixelSquid have available. They are fully realised 3D objects that you can spin around as if it were a solid object, so it better matches the orientation needed to fit your image requirements. You can use the free version which gives you access to over a hundred free objects, as well as watermarked versions of everything else in their library. You will need to create an account, but it is easy to set up and ready in minutes. To use un-watermarked versions, you will need to upgrade to their subscription service, which runs at $199 per year. Personally, we feel this is a little steep for a niche product, but if you require the use of 3D objects in your projects on a regular basis, then the cost is a little more justified.

You simply fire up the plugin and choose which object you want to appear in your document. Place your chosen object and scale it to the required size. You have the options to choose low resolution or high resolution 3D objects, and whether you want the object to cast shadows. In the PixelSquid preview window, you can rotate and angle the object to help it match the perspective present in your photo. The object in your document will update to match the preview. When you have the object just as you want it, you can click the Embed Smart Object button and a layered PSD will be created, which gives you a lot of control over the object in terms of layered effects, selection areas, depth mapping, shadows and fog. Be aware that the high resolution objects can slow your machine down if it is a little underpowered. This is a fun little plugin. The main downfall is that you cannot light the objects to match the lighting in your photo for added realism, but if you wanted to get down and dirty with the layered PSD file, you could no doubt introduce some more shadows to help your image blend in better.

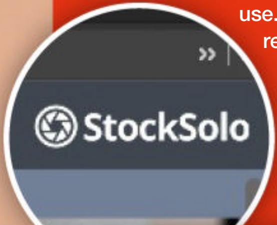

PixelSquid
Free
Watermarked
Lightboxes
Free unwatermarked PNGs and PSDs


PixelSquid
Add New Object
Resolution
Low
High
Shadows
Off
On
Embed Smart Object


Depth
Selection Areas
Sele...art

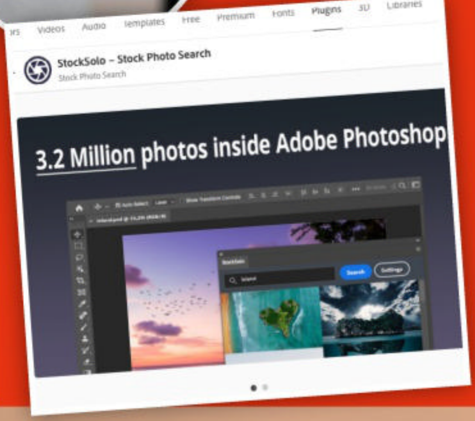
StockSolo

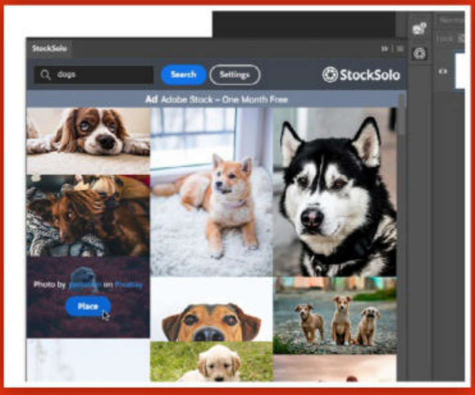
Free to use. No restrictions on photos.

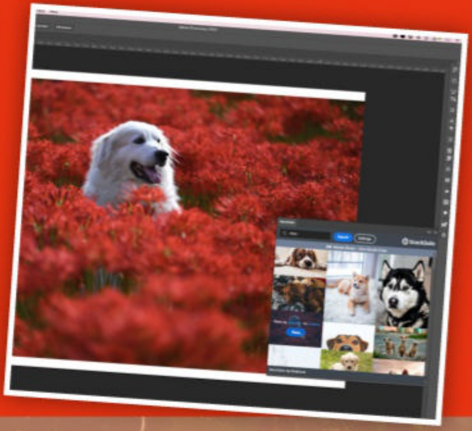


StockSolo is a stock photography library search engine that gives you access to many thousands of photos, that are free for personal and commercial use. No subscription is required and you have immediate access to countless high quality, full resolution images; with no restrictions. First, download the Photoshop plugin and install it. When you start up Photoshop, you'll find the plugin under Plugins > StockSolo. The plugin activates and you can browse, or search by keyword, for images. StockSolo has the option to search for free images from a number of stock library sites. At the time of writing, it allows you to search Pixabay, Pexels and Unsplash. You simply put a subject name in the search field and hit Search to access the libraries of the stock image sites. If you create a blank document of a certain size (say 3000 pixels by 2000 pixels), when you find an image you like, click on the Place button and it will be downloaded and inserted at the correct size to fill your document. Images are downloaded as Smart Objects, which you can rasterize if you so wish.

This is a very handy little plugin, and it lets you quickly find and download images directly into your documents. Given that you have access to all those high-resolution photos from a free plugin, what's not to like?


Videos
Audio
Templates
Free
Premium
Fonts
Plugins
3D
Libraries
StockSolo – Stock Photo Search
Stock Photo Search
3.2 Million photos inside Adobe Photoshop

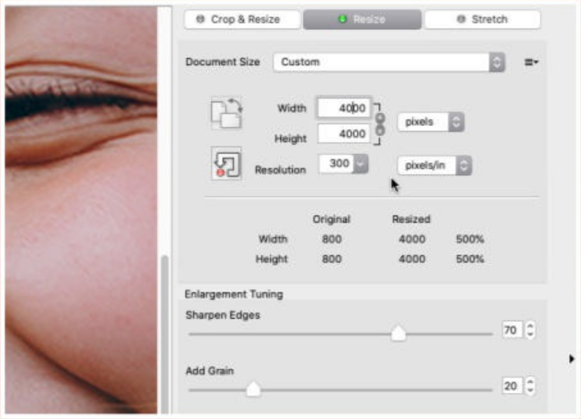

StockSolo
dogs
Search
Settings
StockSolo
Ad Adobe Stock – One Month Free
Photo by
on Pixabay
Place



Blow Up 3 30 day trial. $79 one off purchase.

Reducing an image to a much smaller size presents no problems in day to day use. A good original at 4000 pixels wide, when reduced to 800 pixels wide, will look fine. However, what happens if the reverse is true and you need to blow up a 800 pixel wide image to 4000? This is an extreme example, but if you are faced with this dilemma, you just have to scale the 800 pixels up and hope it comes out ok. Plugins like Blow Up 3 can help by using algorithms to upsample the image and retain as much detail and sharpness as possible. Of course, concessions have to be made, since you are interpolating an image and injecting pixels where there were none to begin with. Results of our 800 pixel to 4000 pixel test were mixed. Although some finer detail of the girl's hair was maintained, it still looked a little painterly and you could make out a definite repeating pattern through areas of similar tone. Adding a little more grain to the image before scaling helps to reduce the impact of the repeating pattern, but how much you add does come down to personal preference. Also bear in mind that the quality of the original image is the key to how well it can be enlarged. A compressed jpeg is going to suffer, since all those inherent artefacts will result in more of that unwanted repeat pattern than you might possibly like.

Starting with a larger original, we tried to scale an image from 3000 pixels to 6000 pixels. With a little finessing of the settings, the results proved to be quite acceptable. They'll never be archival quality, but if you need the extra pixels, then it is certainly an option. At $79 for such a niche plugin, we wonder if Photoshop's own resampling algorithms are good enough to make you reconsider the value of this particular plugin.

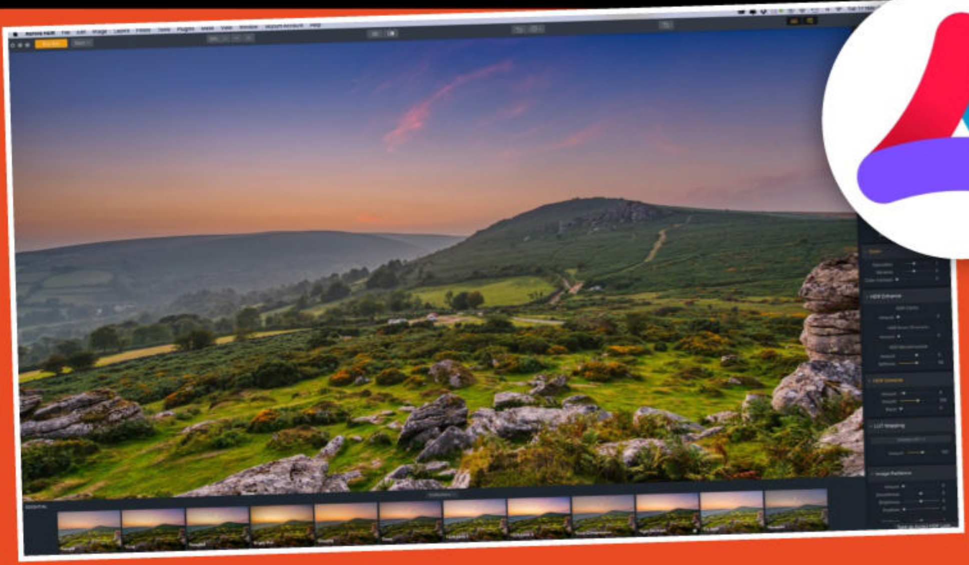


Document Size: Custom
Width: 4000
Height: 4000
pixels
Resolution: 300 pixels/in

	Original	Resized	
Width	800	4000	500%
Height	800	4000	500%

Enlargement Tuning
Sharpen Edges: 70
Add Grain: 20

Aurora HDR 30 day money back period. £92 for 5 licenses.

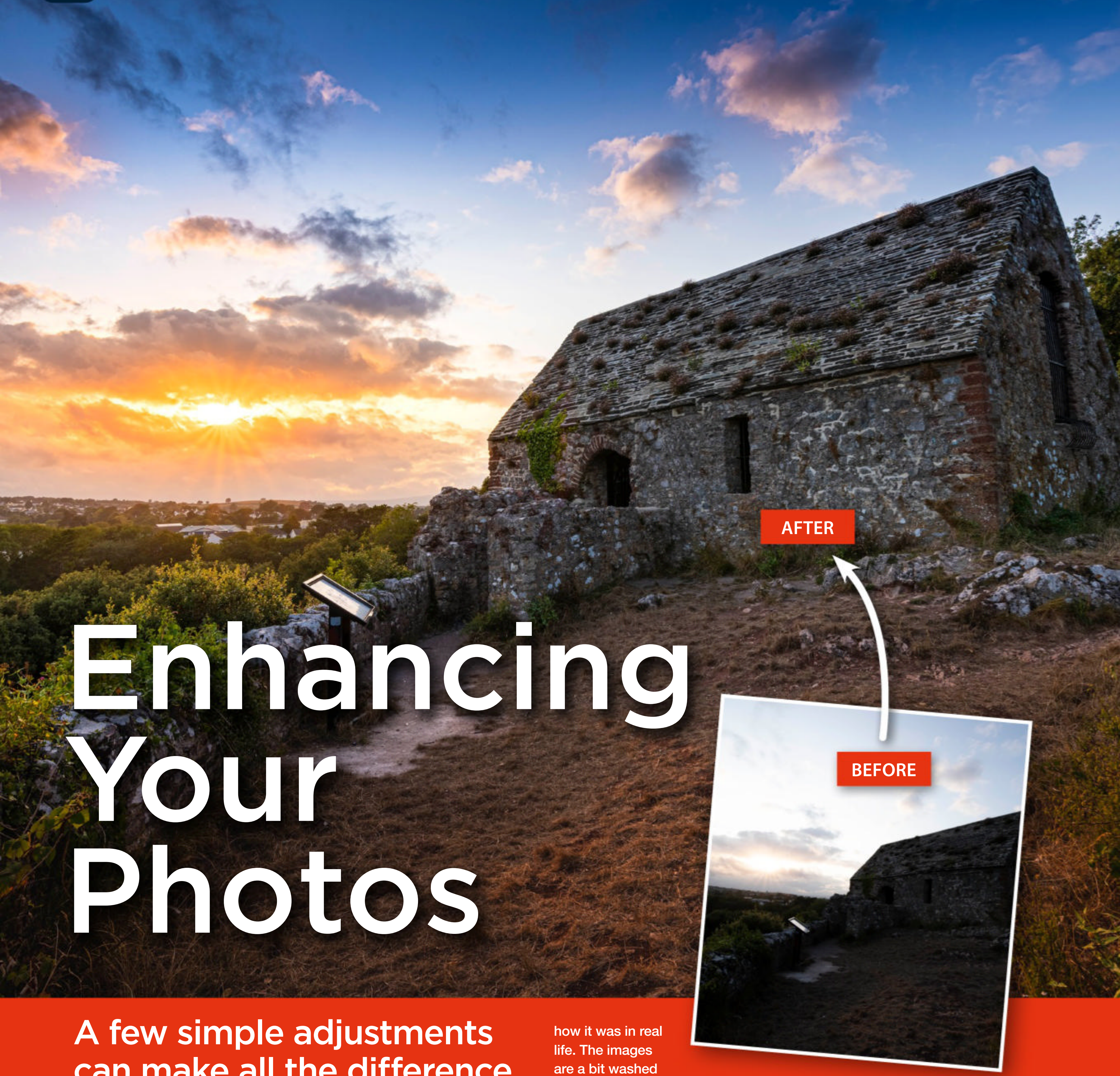


High dynamic range (HDR), images are the result of combining 3 or more bracketed photos to give you a result that contains more tonal data than you can capture in one photo alone. Once you have your set of bracketed photos, you need to be able to combine them to create your final HDR image. There are plenty of applications out there to merge your photos and produce a final result. Photoshop and Lightroom are among them of course, but Aurora HDR is an advanced HDR creation package that gives you a huge amount of control over your images, and is used by a number of industry leading photographers.

Aurora HDR works as both a Photoshop and Lightroom plugin, as well as a standalone application. There's no subscription, it's just a one-time purchase and it's yours. Be aware of which versions of Photoshop and Lightroom it works with though. We tried the demo, which didn't appear to work with Photoshop 2020, although the newer versions do, according to the website. Presumably support for Photoshop 2021 is on the way. Until it is supported, you can of course run it in its standalone form anyway.

First off, if you don't have bracketed images, you can import one image and Aurora HDR will still be able to create an HDR image from that. Just be aware that if the sky of an image is far too overexposed and detail is lost, no amount of clever algorithms will save it. Although, if you've already read the review about Luminar 4, you do at least have the option to drop a completely new sky in there!

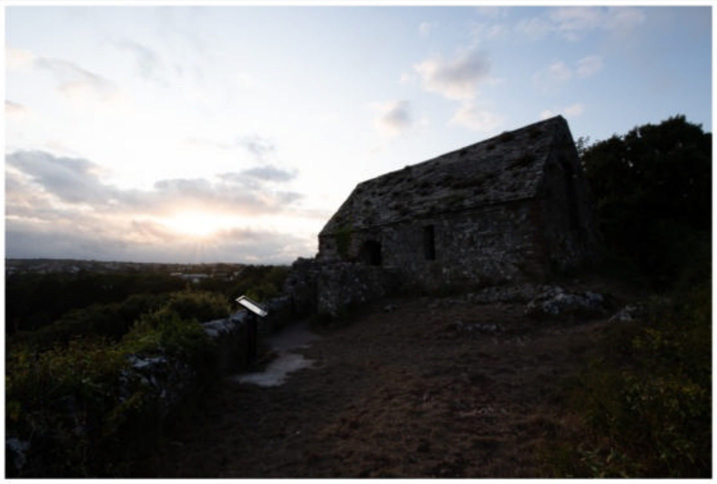
If you do have a bracketed sequence of images, then you can open these together and Aurora HDR will merge them automatically. It can align images, and apply deghosting techniques to reduce the impact of any moving objects in the scene; using one of the sequence images as a reference. You also have the option to apply a colour denoise filter and remove chromatic aberrations in each image. Then the process of enhancing the results begins. You have a huge set of tools at your disposal that let you bring out every last pixel of detail and tonal data. You can also layer your adjustments, add radial and gradient filters, choose from a number of presets and so on. You can even save your edits as a preset, to apply to any subsequent images. It is certainly powerful and the control you have is impressive. Beware though, it is all too easy to get a bit heavy handed with your edits. A good HDR is all about subtlety, so keep an eye on those edits.



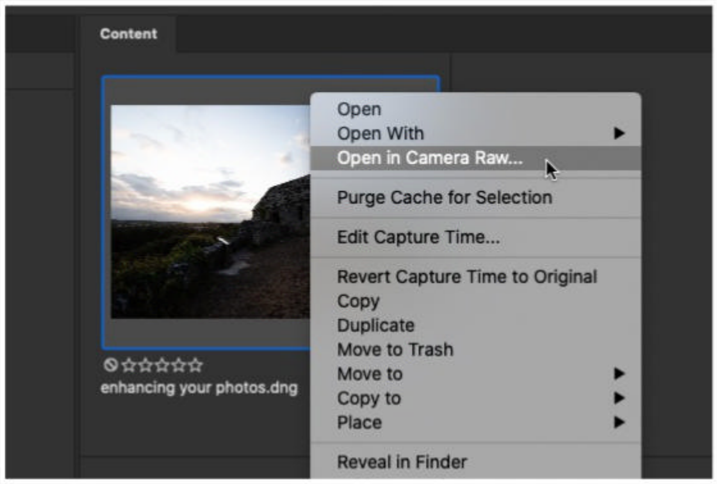
Enhancing Your Photos

A few simple adjustments can make all the difference

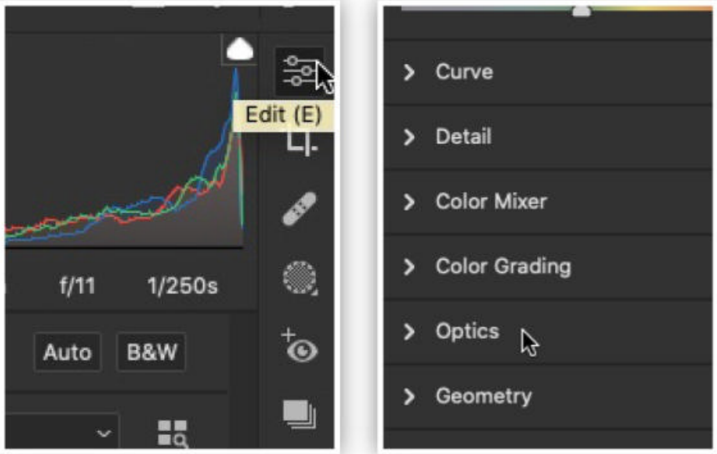
Here's a scenario to ponder. You're out with your camera, taking shots of some beautiful scene. It's sunrise down by the water's edge. The light is amazing, the clouds are well defined and lit by the rising sun, there is a glow along the horizon and some cool reflections in the wet sand at your feet. You compose a strong, yet simple shot and click off a few frames. When you get home and download them to your computer, you open them up and you're surprised at how different the images look to how it was in real life. The images are a bit washed out, the colours seem a little weak. Did you get your camera settings wrong? There's every chance you didn't. Sometimes what you see with your own eyes is not how the camera will interpret it. Your eyes have greater dynamic range than any sensor and they see more tonal variations. Don't worry though, with a few simple steps, you can take that image and enhance it to not only match, but surpass, the conditions present when you took the shot. Adding more detail, contrast and saturation is referred to as making them 'pop'. Here's how you can make your own images 'pop'.



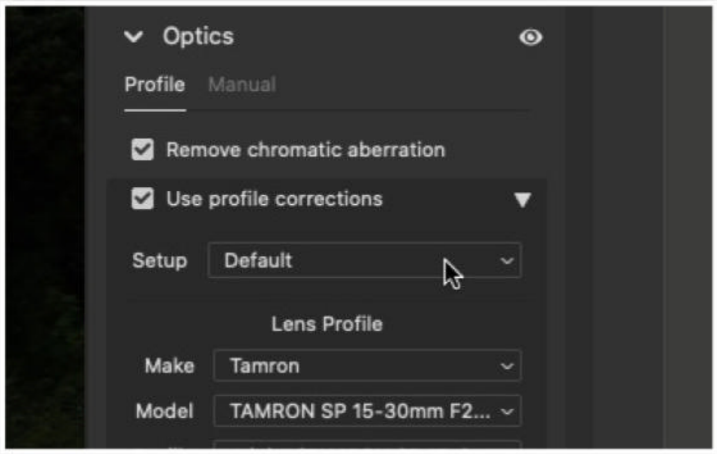
01 Our example is a moody evening hilltop chapel image. Although the exposure is a little off, it should be quite recoverable because of the leeway offered by the Raw file. The sky is a little bit overexposed, but you'll be surprised what you can do with it.


Content
enhancing your photos.dng
Open
Open With
Open in Camera Raw...
Purge Cache for Selection
Edit Capture Time...
Revert Capture Time to Original
Copy
Duplicate
Move to Trash
Move to
Copy to
Place
Reveal in Finder

02 Our image is shown here in Adobe Bridge, which is the application designed to manage, catalogue and keyword your image library. Since this is a Raw file, we can go ahead and open it up in Camera Raw, by right-clicking on it and choosing Open In Camera Raw.

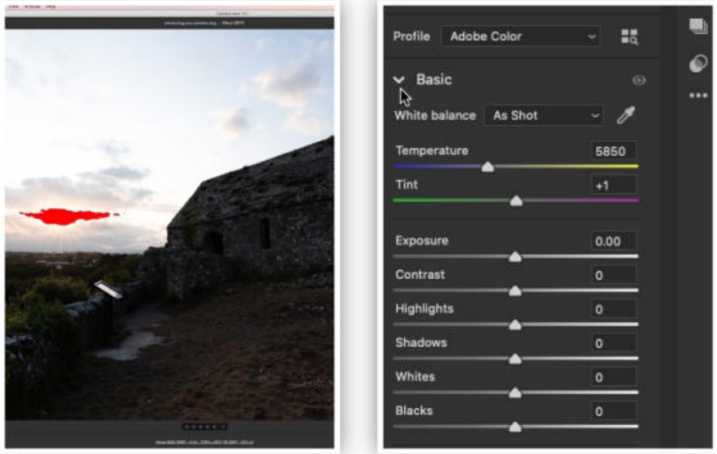

Edit (E)
f/11
1/250s
Auto
B&W
Curve
Detail
Color Mixer
Color Grading
Optics
Geometry

03 The image will open in Camera Raw, ready for editing. One of the first things to do is to click on Edit (E), in the toolbar and then choose the Optics panel. When you click it, the Optics panel will expand showing you all the available options for lens correction.


Optics
Profile
Manual
Lens Profile

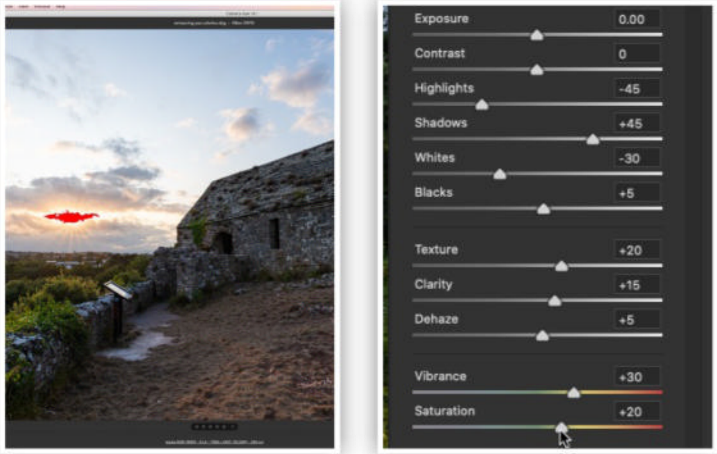
☑ Remove chromatic aberration
☑ Use profile corrections
Setup: Default
Make: Tamron
Model: TAMRON SP 15-30mm F2...

04 Profile Corrections assesses what equipment has been used to capture the image and removes any lens distortion from the Tamron 15-30mm lens that was used in this example; as well as any purple/green fringing that lenses can sometimes produce.



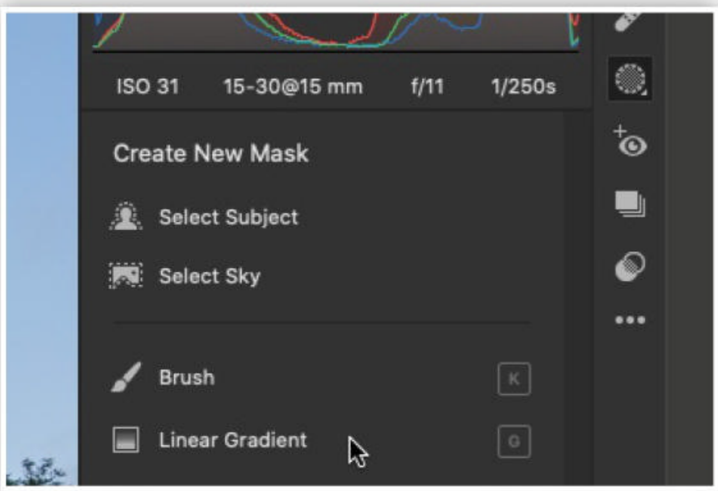
Profile: Adobe Color
White balance: As Shot
Temperature: 5850
Tint: +1
Exposure: 0.00
Contrast: 0
Highlights: 0
Shadows: 0
Whites: 0
Blacks: 0

05 Next, click on the Basic tab. This is where the majority of the required adjustments can be made to your image. Elements like Temperature, Tint, Exposure, Contrast, Saturation, Highlights and Shadows can all be altered here.

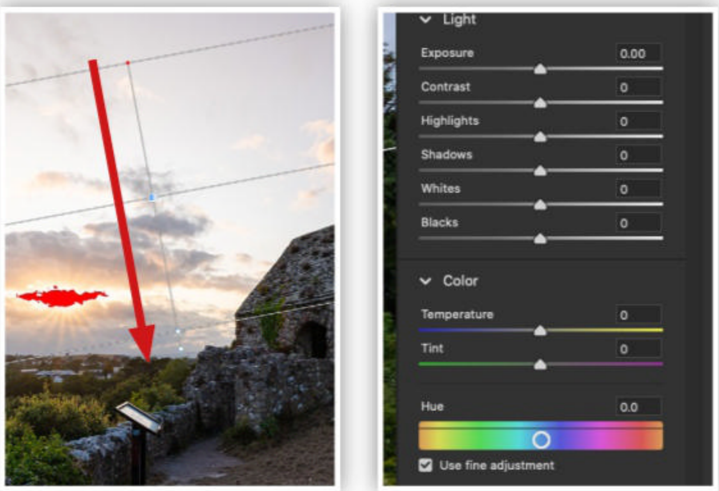


Exposure: 0.00
Contrast: 0
Highlights: -45
Shadows: +45
Whites: -30
Blacks: +5
Texture: +20
Clarity: +15
Dehaze: +5
Vibrance: +30
Saturation: +20

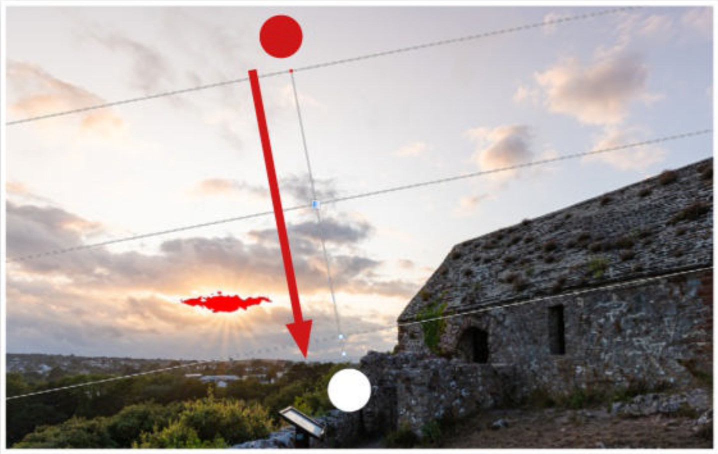
06 We've made some simple changes to the picture. The Highlights and Whites have been reduced to keep detail in the bright areas of the clouds, and the Shadows and Blacks have been lightened. Texture, Clarity, Dehaze, Vibrance and Saturation have been increased.



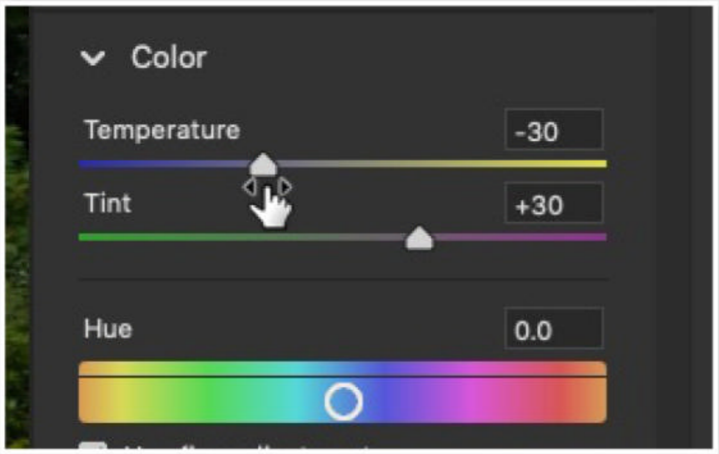
07 The next thing that would be a good improvement to the shot is to make the sky stronger at the top of the frame. Go to the toolbar and click the Masking button and choose the Linear Gradient option. Be aware that if a sky is too bright and burnt out, this effect may not work very well.


Light
Exposure 0.00
Contrast 0
Highlights 0
Shadows 0
Whites 0
Blacks 0
Color
Temperature 0
Tint 0
Hue 0.0
☑ Use fine adjustment

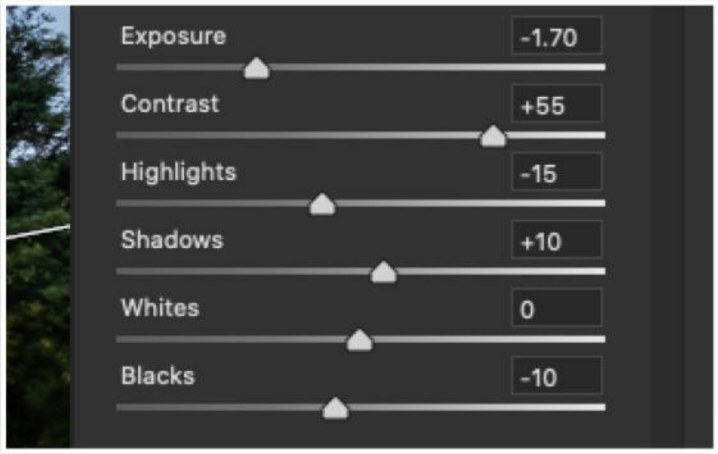
08 With the Linear Gradient chosen, click and drag from the top of the picture to a point just below the horizon. The values for the graduated filter are zeroed out at first, so there is no apparent change. This is handy, since we can demonstrate the effect the adjustments make.



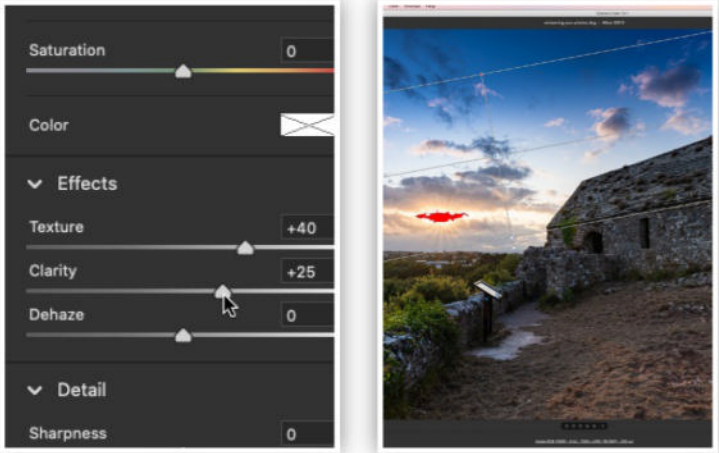
09 When using the Linear Gradient the start point, which is displayed in red, will apply the effect at 100 per cent opacity. The effect then gradually fades to zero opacity at the end point, which is displayed in white. You can think of this as a digital version of a filter used on a camera.


Color
Temperature -30
Tint +30
Hue 0.0

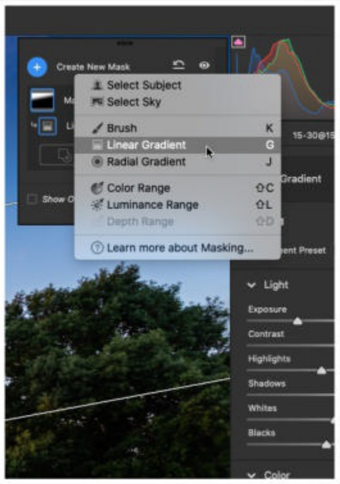
10 When you use the grad filter, its properties will be displayed on the right of the screen. We started by altering the Temperature slider to -30 at this point in the edit, and the Tint value was changed to +30 to help add more depth to the colours in the sky and clouds.

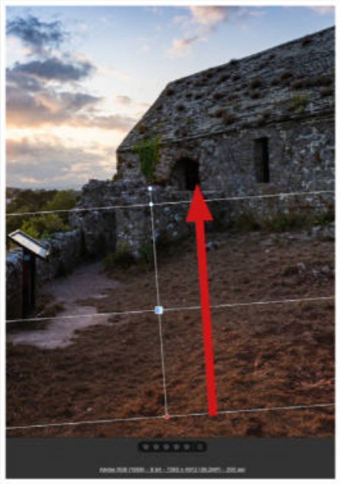

Exposure -1.70
Contrast +55
Highlights -15
Shadows +10
Whites 0
Blacks -10

11 We dropped Exposure to -1.70 and Contrast was increased to +55 to give it a little more punch. At this point in the processing stage, Highlights were -15, to reclaim some detail in the brightest parts. Shadows were +10 and Whites were left at 0 and Blacks -10.

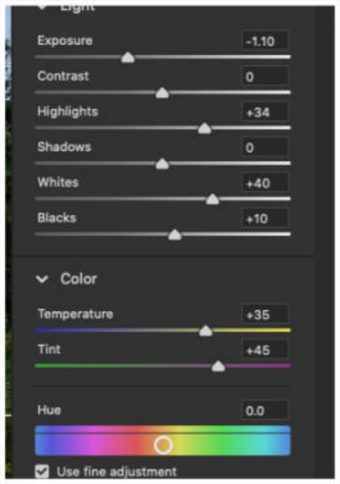

Saturation 0
Color
Effects
Texture +40
Clarity +25
Dehaze 0
Detail
Sharpness 0

12 The amount of Texture and Clarity was also boosted quite a bit to +40 and +25 respectively, to add midtone contrast to the clouds; and Dehaze was left unaltered, but Saturation was left at 0. The sky is darker now, and the clouds have more colour, definition and contrast.


Create New Mask
Select Subject
Select Sky
Brush K
Linear Gradient G
Radial Gradient J
Color Range ⇧C
Luminance Range ⇧L
Depth Range ⇧D
Learn more about Masking...
Light
Exposure
Contrast
Highlights
Shadows
Whites
Blacks
Color



13 You can add more graduated effects to the foreground by clicking Create New Mask and clicking on Linear Gradient again. The new gradient will have all its adjustment parameters at zero, ready for you to begin adding them to suit your preference.



Light

Exposure -1.10

Contrast 0

Highlights +34

Shadows 0

Whites +40

Blacks +10

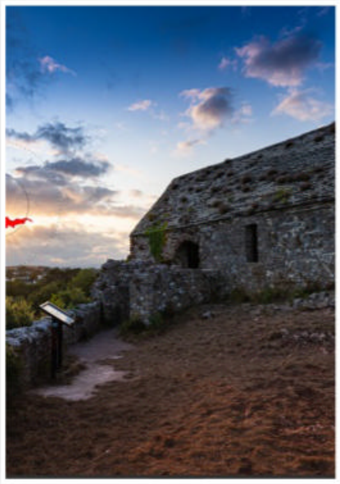
Color

Temperature +35

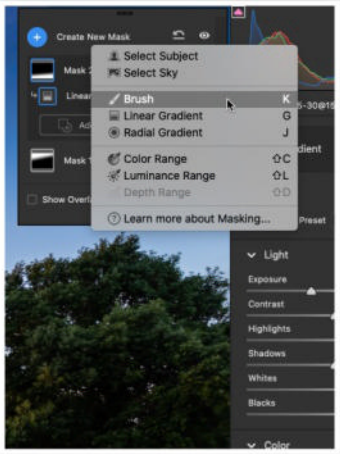
Tint +45

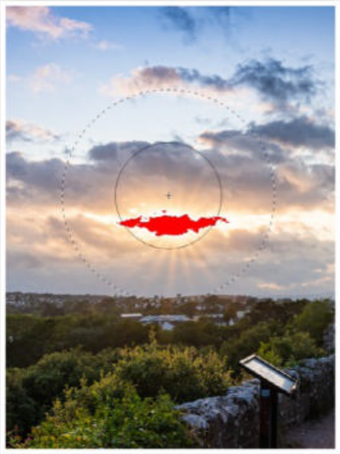
Hue 0.0

☑ Use fine adjustment

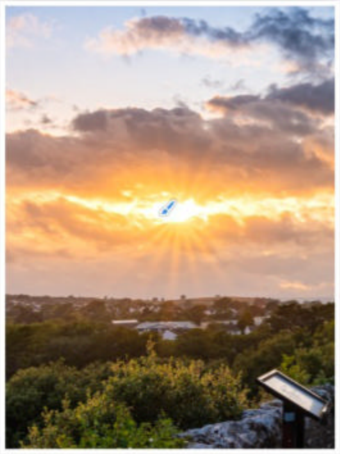


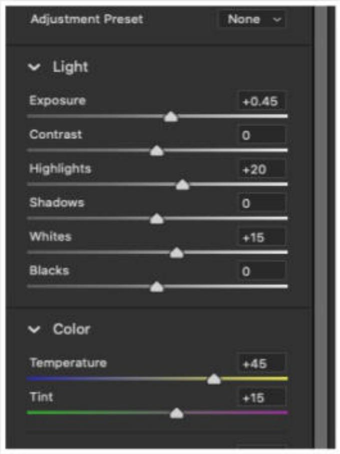
14 With the new grad active, you can alter all the settings until you have something you like. We've altered values to brighten the foreground and altered the Temperature and Tint values, to make the ground a little more brown. Texture and Clarity has also been boosted.


Create New Mask
Select Subject
Select Sky
Brush K
Linear Gradient G
Radial Gradient J
Color Range ⇧C
Luminance Range ⇧L
Depth Range ⇧D
Learn more about Masking...
Light
Exposure
Contrast
Highlights
Shadows
Whites
Blacks
Color



15 You can also make more targeted adjustments using the Brush (K), to paint adjustments onto your image. All the parameters you can adjust can be seen in the properties panel. You can alter the Size, Feather, Flow and Density in the properties panel as well.





Adjustment Preset None

Light

Exposure +0.45

Contrast 0

Highlights +20

Shadows 0

Whites +15

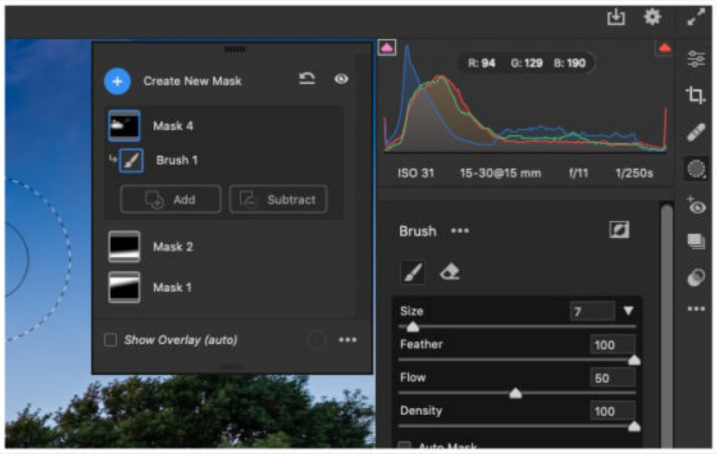
Blacks 0

Color

Temperature +45

Tint +15

16 With the adjustment brush applied to the clouds, you can set about altering the properties if you wish. We've made the brightest areas of the clouds warmer and boosted the Exposure, Highlights and Whites to bring out the light tones in the clouds, without losing detail.


Create New Mask
Mask 4
Brush 1
Add
Subtract
Mask 2
Mask 1
Show Overlay (auto)
Brush
Auto Mask

R: 94 G: 129 B: 190

ISO 31 15-30@15 mm f/11 1/250s

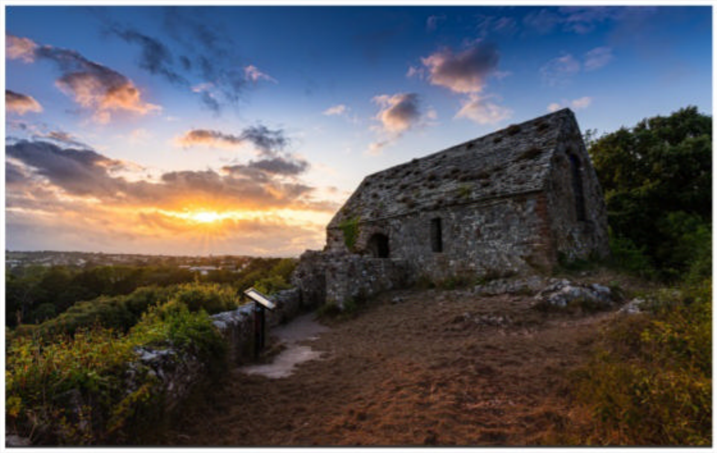
Size 7

Feather 100

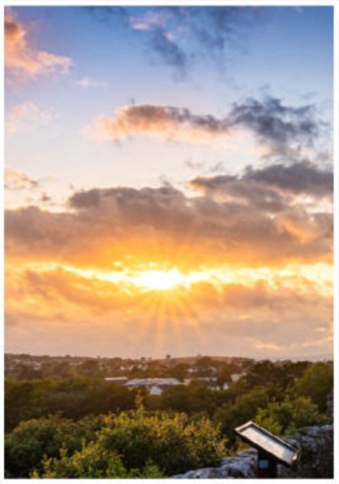
Flow 50

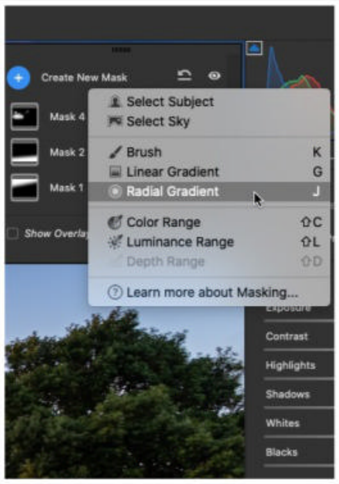
Density 100

17 Each Gradient or Brush you add can be clicked on and the values tweaked at any time. We went back to the Linear Gradient (G), and clicked on the top grad and decreased the Exposure value a little more, and boosted the cool tones.

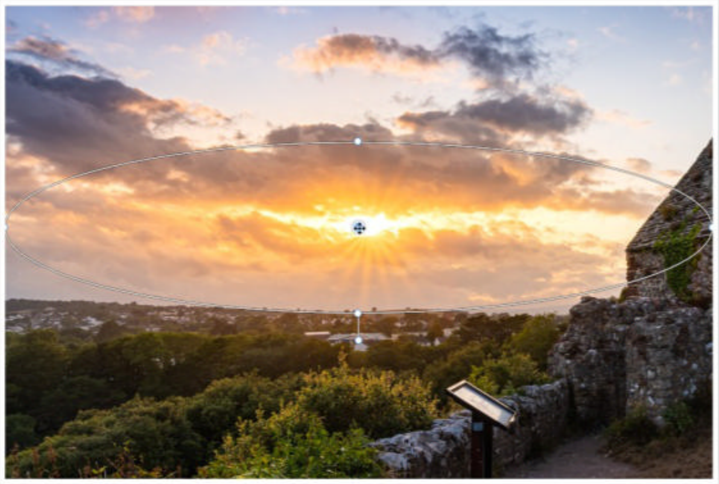


18 The edits are coming along nicely. The image is more tonally balanced and enhances the moody look that was present at the time of shooting. The colour temperature has been increased for warmer tones and the clouds have more detail and contrast.

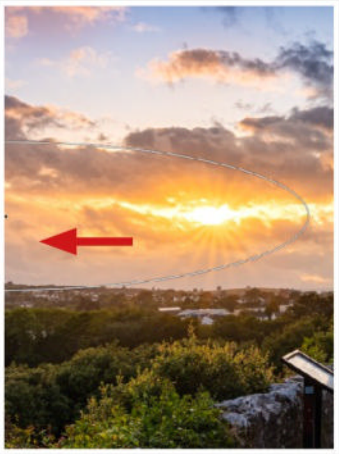


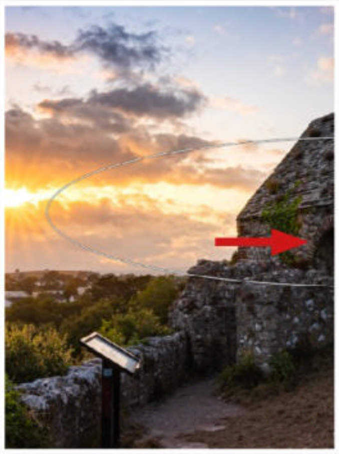

Create New Mask
Mask 4
Mask 2
Mask 1
Show Overlay
Select Subject
Select Sky
Brush K
Linear Gradient G
Radial Gradient J
Color Range ⇧C
Luminance Range ⇧L
Depth Range ⇧D
Learn more about Masking...
Exposure
Contrast
Highlights
Shadows
Whites
Blacks

19 Next, we want to boost the colours of the horizon a little more using the Radial Gradient (J). This has been amalgamated with the Linear and Brush filters and behaves like the Linear Gradient, but its effect is circular/elliptical rather than a straight line.

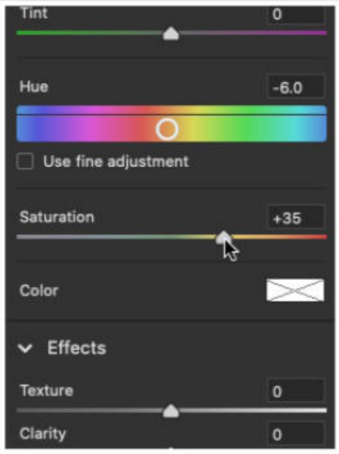


20 With the Radial Gradient selected, click and drag out an ellipse along the centre of the horizon, just above the line of distant hills. The properties start at zero by default again, so we are able to demonstrate the changes as we make them.

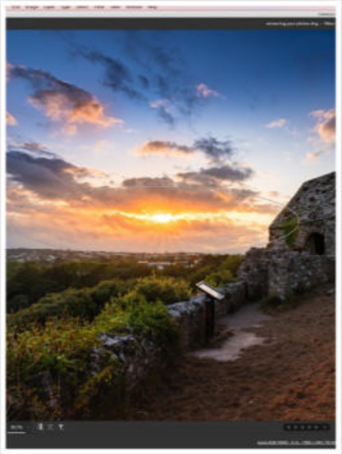




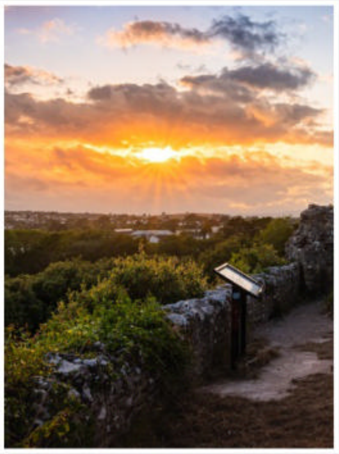
21 If you wish, you can click on the centre pin of the filter and move it around to any part of the picture without any issue. After trying a few positions we've just placed it on the horizon where the sun is lighting up the sky and the land in front of the chapel.

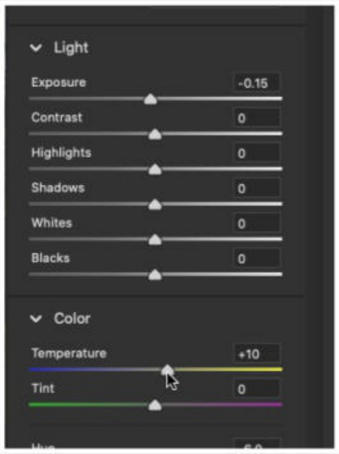


Tint 0
Hue -6.0
☐ Use fine adjustment
Saturation +35
Color
Effects
Texture 0
Clarity 0



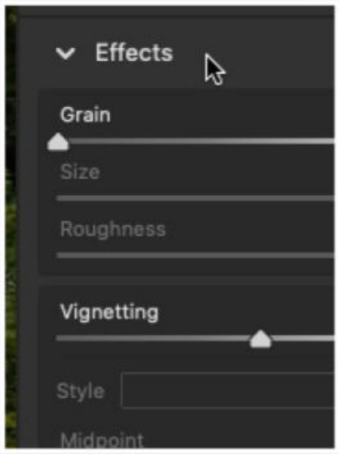
22 To give the image even more of a glow, we want to warm up the horizon. You can actually colour the filter by clicking on the Hue selector from the Radial Gradient properties, on the right of the screen, and selecting a tint that suits the scene best. You can boost the Saturation if needed.

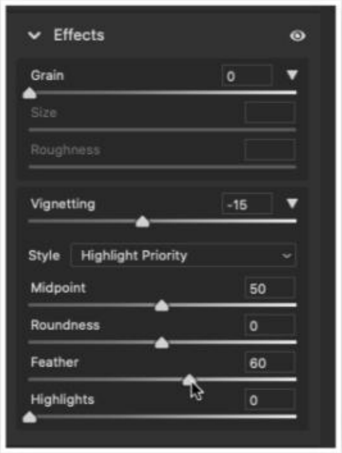




Light
Exposure -0.15
Contrast 0
Highlights 0
Shadows 0
Whites 0
Blacks 0
Color
Temperature +10
Tint 0

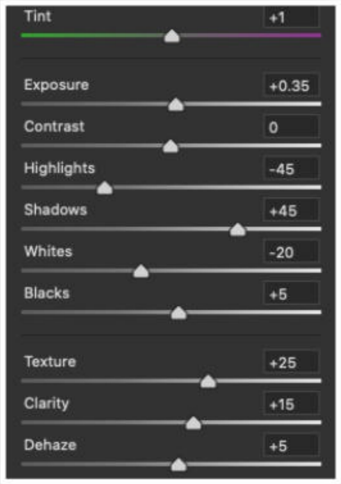
23 You can also alter the filter's other properties to further amend the quality, colour and brightness of the effect to your taste. We've altered Exposure to -0.15 and Temperature to +10. Remember that you can go back into this adjustment and alter it at any time.


Effects
Grain
Size
Roughness
Vignetting
Style
Midpoint

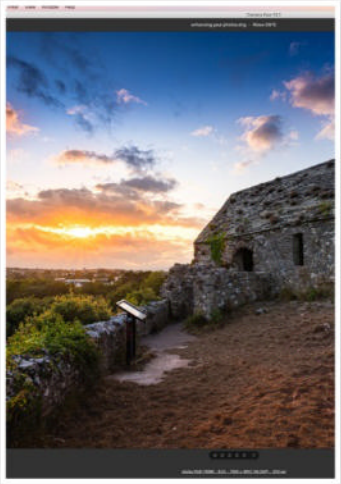


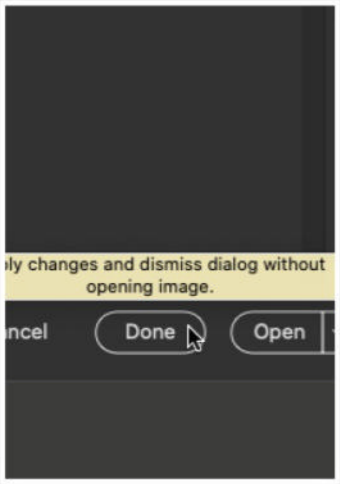
Effects
Grain 0
Size
Roughness
Vignetting -15
Style Highlight Priority
Midpoint 50
Roundness 0
Feather 60
Highlights 0

24 One final, optional adjustment is to add a small amount of vignette to the picture. If you go to the Effects panel, add Vignetting to darken the edges of the photo. We've made the Amount -15, Midpoint 50 and Feather 60.

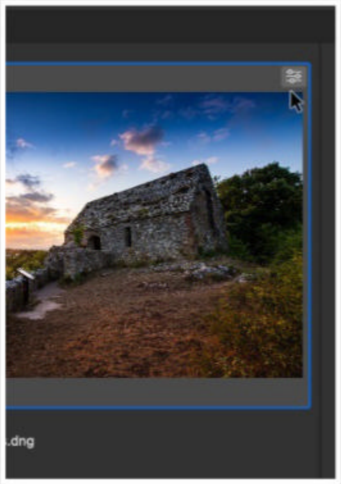


Tint +1
Exposure +0.35
Contrast 0
Highlights -45
Shadows +45
Whites -20
Blacks +5
Texture +25
Clarity +15
Dehaze +5



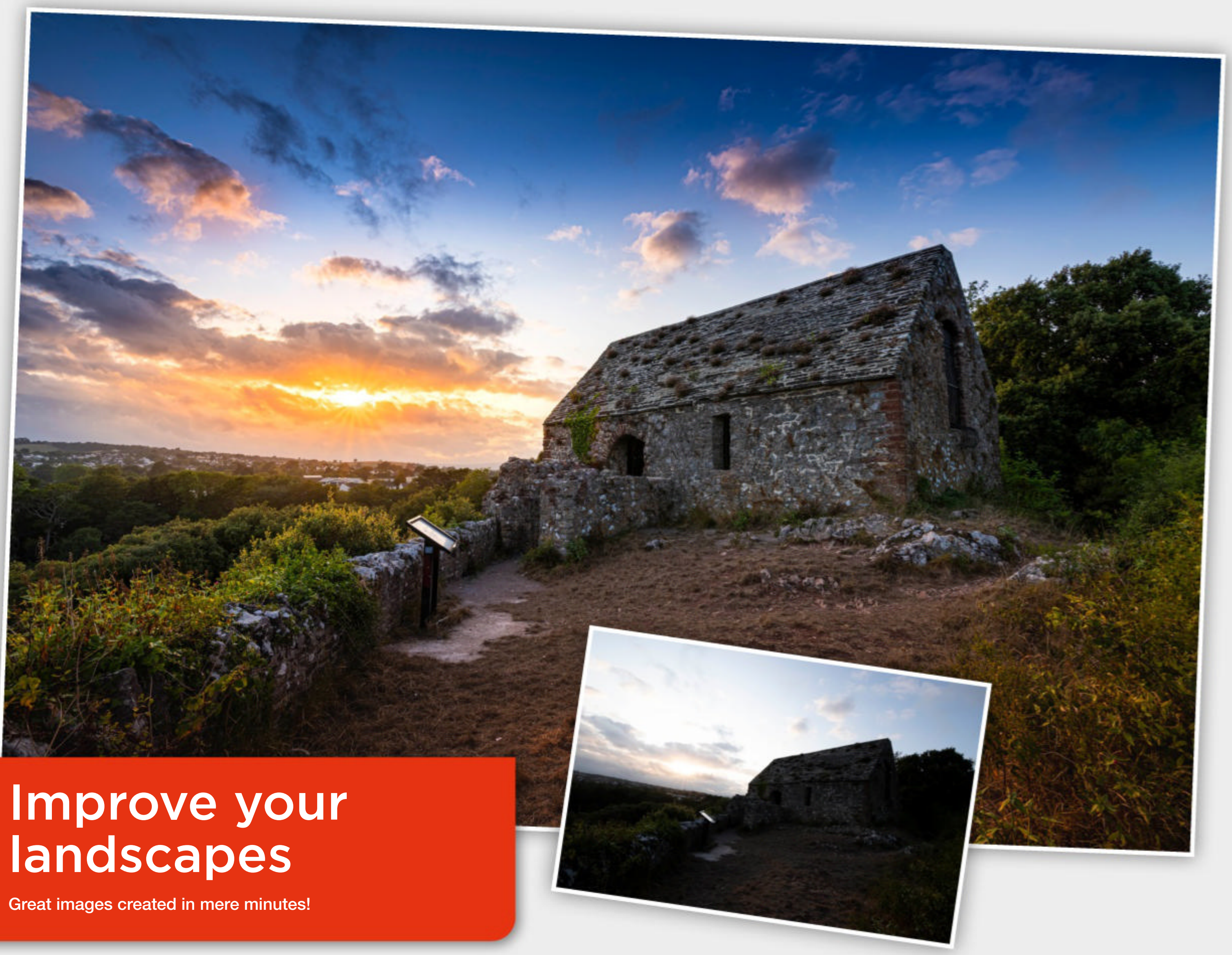


ly changes and dismiss dialog without opening image.



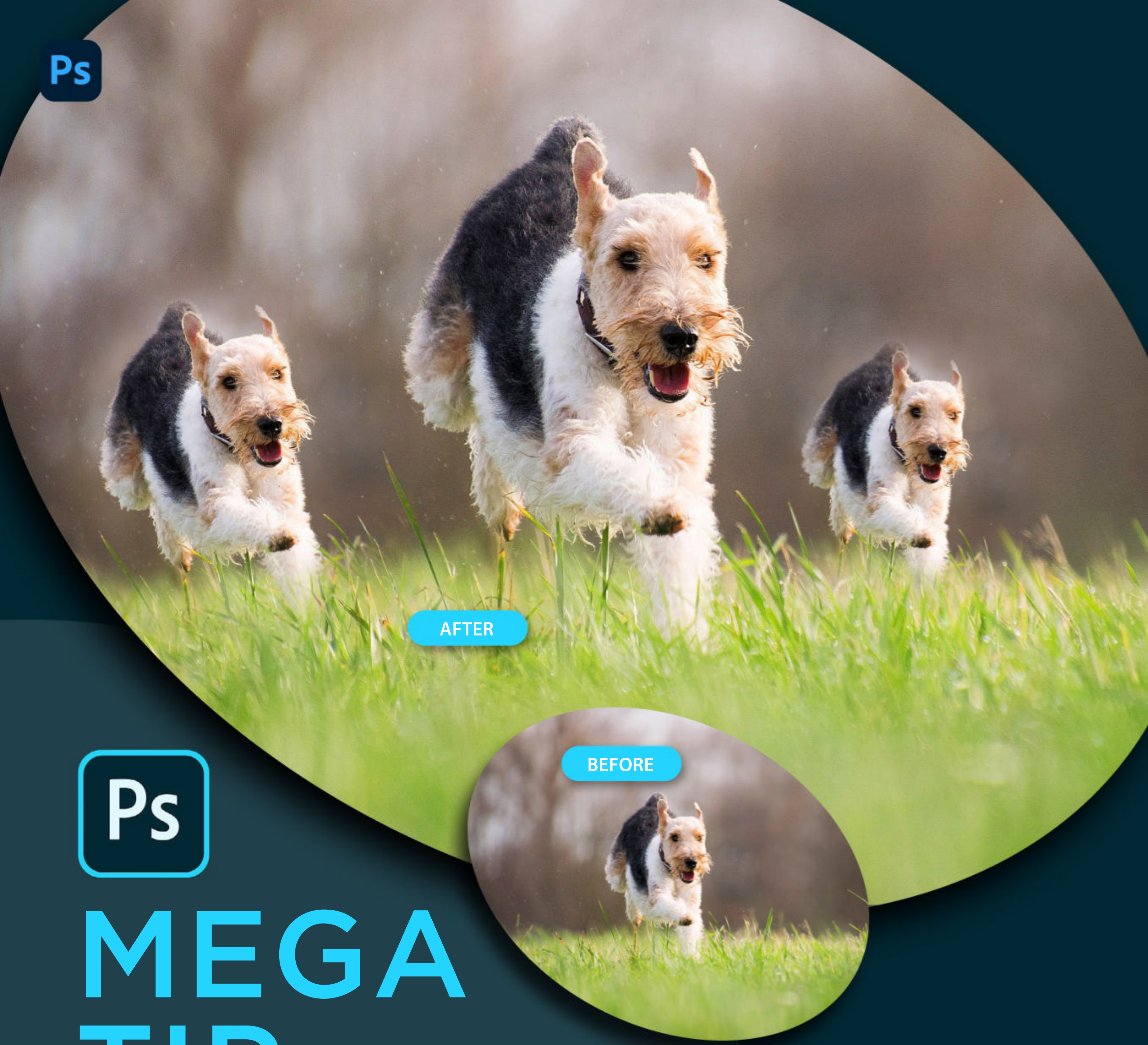
25 Back in the Basic panel, we've made some final edits to the image, boosting Exposure a little, lifting the Vibrance and Saturation and increasing the strength of the Whites. We also made a crop of the image. Our adjustments for this image are now complete.

26 You can just click on the Done button and apply all the adjustments you made non-destructively to the file. When you do, the image will show the changes made along with small icons in the top right of the thumbnail to indicate it has adjustments and crops attached.



Improve your landscapes

Great images created in mere minutes!

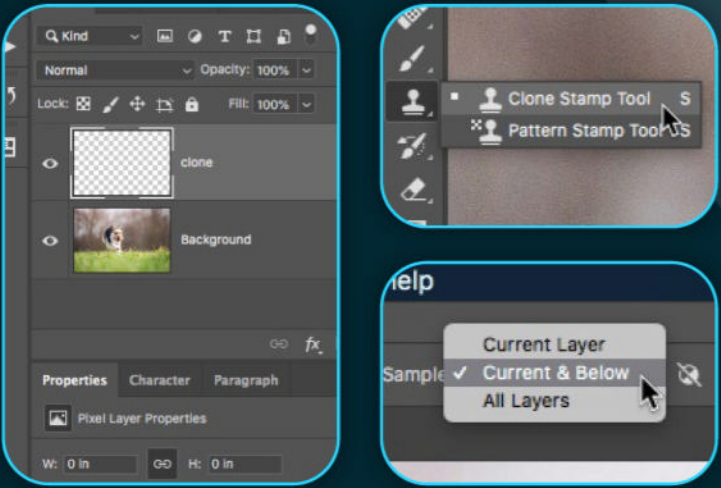


MEGA TIP

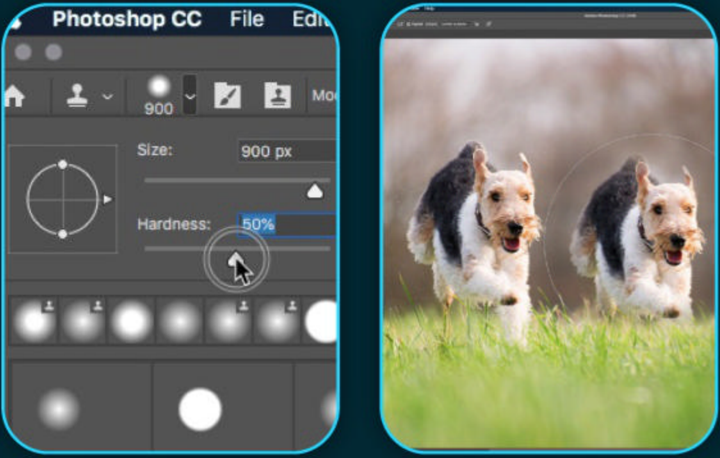
Clone Stamp Control

The Clone Stamp tool is one of the most important available in Photoshop. You can paint pixels from one part of an image onto another. Let's look at some ways you can control the cloning process.

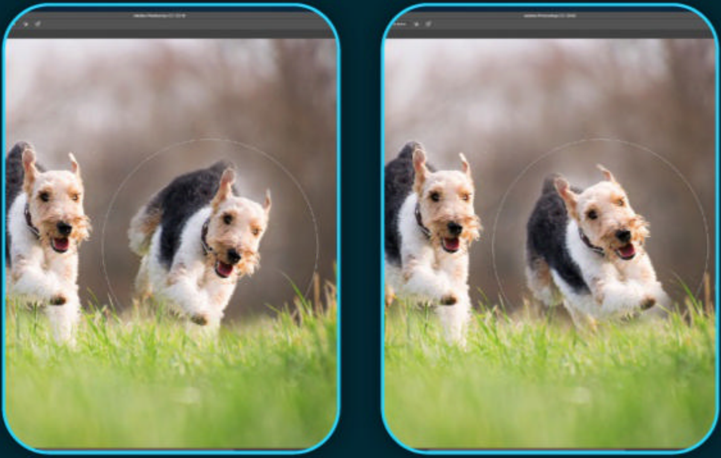
01 We have an image of a dog running towards camera. We can use the Clone Stamp tool to create more versions of the dog and place them in the shot, but more than that, we can have a measure of control about how the cloned copy is placed when you stamp it onto a layer.


Kind
Normal
Opacity: 100%
Lock:
Fill: 100%
clone
Background
Properties
Character
Paragraph
Pixel Layer Properties
W: 0 in
H: 0 in
Clone Stamp Tool S
Pattern Stamp Tool S
elp
Sample
Current Layer
✓ Current & Below
All Layers

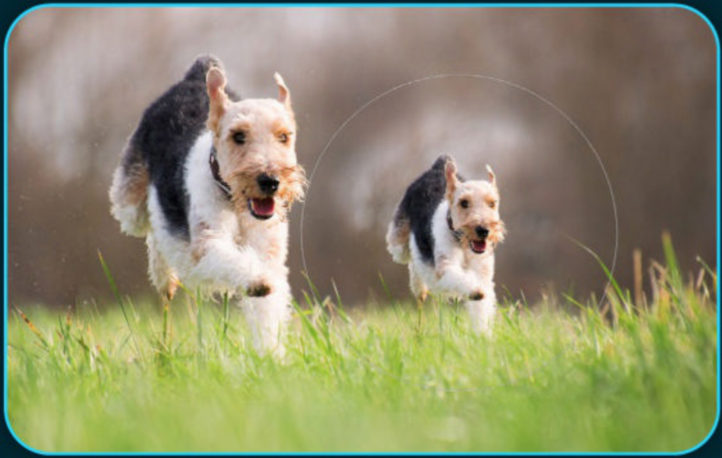
02 It is always a great idea to place any cloned samples onto a new layer. Create a new layer called 'clone' and select the Clone Stamp tool from the toolbar. In the Menu options panel, make sure that Sample is set to Current & Below. This will clone from the Background layer onto the new layer, without issue.


Photoshop CC
File
Edi
900
Mo
Size: 900 px
Hardness: 50%

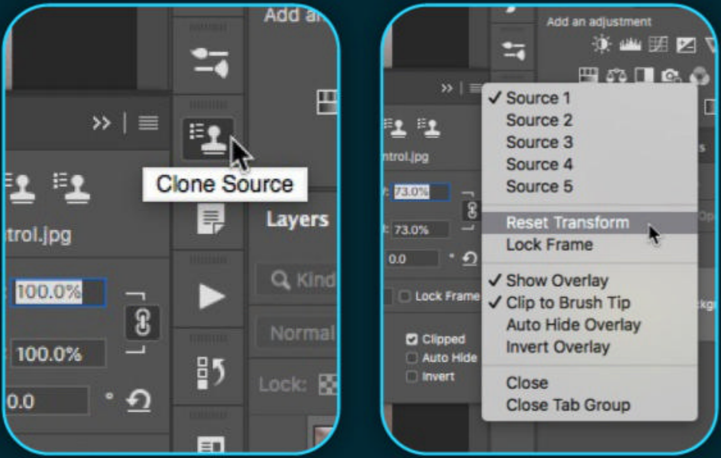
03 Set a size for your Clone Stamp tool. Our example is a brush 900 pixels in size and Hardness is set to 50%. Next, press Alt and click over the centre of the dog to set this as your clone source. If you move your cursor to the left, you will see a real time preview of the chosen pixels.



04 Before stamping it into place, if you hold the Shift + Alt keys and then press either the < (less than) or > (greater than) keys, you can rotate the cloned source. The < key rotates anticlockwise and the > key rotates in a clockwise direction. You can rotate 360° if you wish.



05 You also have the option to scale the cloned pixels before stamping it into place on your photo. If you hold Shift + Alt and then press either: [(left bracket) or] (right bracket), you can scale the source pixels. The [key reduces the size and the] key increases the size.


Add a
Clone Source
Layers
trol.jpg
100.0%
100.0%
0.0
Kind
Normal
Lock:
Add an adjustment
ntrol.jpg
73.0%
73.0%
0.0
Lock Frame
Clipped
Auto Hide
Invert
✓ Source 1
Source 2
Source 3
Source 4
Source 5
Reset Transform
Lock Frame
✓ Show Overlay
✓ Clip to Brush Tip
Auto Hide Overlay
Invert Overlay
Close
Close Tab Group

06 If you want to clear the Clone Source settings, open the Clone Source panel, click on the small menu icon in the top right of the panel and choose Reset Transform from the list that appears. Your Clone Stamp tool will be reset to its default state.

Glossary

A list of terms you may encounter as you learn

Active layer
The layer currently selected in the Layers panel.

Adjustment layer
A layer that lets you apply colour and tonal adjustments to your image without permanently changing pixel values. Use adjustment layers to experiment with colour and colour tones. You can think of an adjustment layer as a veil through which the underlying layers are seen.

Adobe RGB
The RGB colour space profile created by Adobe Systems, Incorporated. It provides a large gamut of colours. (See also RGB.)

Aliasing
The jagged edges seen at the edges of diagonal lines, arcs, and so on, caused by pixels lining up in a saw-tooth pattern.

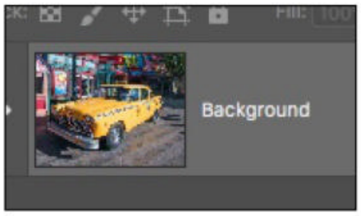
Alpha channels
Masks, which let you manipulate, isolate, and protect specific parts of an image. In Photoshop, alpha channels are called saved selections. To save an alpha channel, choose Select > Save Selection. To load an alpha channel, choose Select > Load Selection.

Anti-aliasing
The smoothing of jagged edges in digital images by averaging the colours of the pixels at a boundary.

Artefact
Any unexpected and undesired change to a digital image caused by incorrect settings or faulty processing. Examples include blooming, moiré, sharpening, and noise.

Aspect ratio
The ratio of an image's width to its height. It is used to determine how an image fits on a page or monitor.

Background layer
The bottom-most layer in an image, usually containing the image data. The Background layer is always locked. If you want to change its stacking order, blending mode, or opacity, you must first convert it to a regular layer.



Backlight
Light coming from a source behind the subject.

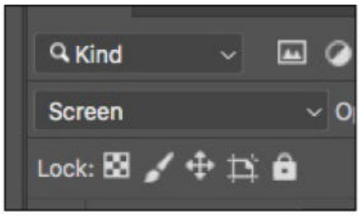
Batch processing
Performing one or more tasks to a group of files at the same time.

Bit depth
The number of colours used to represent a pixel in an image. A 1-bit image is black and white; an 8-bit image can have 256 colours or shades of grey; a 16-bit image can have 65,536 colours.

Bitmap image
An image consisting of rows and columns of pixels in computer memory. Also called a raster image. Bitmap file formats include BMP, GIF, JPEG, PSD, PICT, and TIFF. (See also vector graphics.)

Bits per channel
Determines how many tones each colour channel can contain.

Blending mode
A feature that controls how pixels in an image are affected by a painting or editing tool. The blend colour is applied to the base (original) colour to produce a new colour.



Brush preset
A brush with preset settings for size, thickness and so on. Photoshop includes several brush presets for you to choose from, and you can create a large number of your own presets as well.

Burning
The selective darkening of a part of an image.

Camera raw format
A format describing data exactly as it is captured by a camera sensor, with no in-camera processing applied to the capture.

Canvas
The workspace around an existing image, within the image window. Layer data may lie outside of the canvas, but it will be clipped to the canvas when the image is flattened. You can change the size and colour of the canvas by choosing Image > Resize > Canvas Size.

Channel
A construct for describing the colour data in an image. A black-and-white greyscale image has one channel, an RGB image has three, and a CMYK image has four.

Clipboard
The temporary holding area for data stored with the Cut or Copy commands.

Clone
To paint with the Clone Stamp tool. You must set a sampling point on the active layer before you paint with the Clone Stamp tool.

CMYK
Cyan, magenta, yellow, and black; the inks most printers use to produce colour images. Photoshop includes full support for CMYK mode.

Colour cast
An unwanted or unexpected colour shift in a photo. For example, a photo taken indoors without a camera flash may have too much yellow.

Colour channels
The component colours from which all colours in an image are created. Usually refers to red, green, and blue (RGB).

Colour depth
Measures how much colour information is available to display or print each pixel in an image. Greater colour depth means more available colours and more accurate colour representation in the digital image.

Colour management
A system used to achieve consistent colour as an image travels from one device to another.

Colour temperature
The degree of heat (in degrees Kelvin) that an object would have to absorb before it glowed in a certain colour. Each colour is associated with a colour temperature, as are various kinds of light.

Compression
A technique that reduces the file size of bitmap images.

Cropping
Trimming a portion of an image to improve its composition or to create a frame around it.

Definition
Sharpness or clarity of detail in an image.

Dithering
The approximation of an unavailable colour through the use of two or more available colours. The colour of adjacent pixels is changed in an attempt to reproduce the unavailable colour.

Dodging
The selective lightening of any part of an image.

Dots per inch (dpi)
A measure of printer resolution. High dpi settings produce prints with fine detail. Also used for monitors. (See also pixels per inch (ppi).)

Duotone
A two-colour greyscale file that uses two custom inks.

Embedded profile
An ICC (colour) profile resident in an image file. This profile ensures that image colours are correctly interpreted.

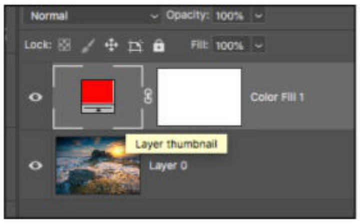
EPS
Encapsulated PostScript. A file format used to save images that will be used in illustration and page-layout programs.

EXIF
Exchangeable Image File Format. A standard for simplifying the exchange of data between cameras and software. The data may include camera model, date and time the photo was taken, camera settings, shutter speed, and so on.

Exposure
A measure of the amount of light in which a photo was taken. Underexposed digital photos are too dark; overexposed ones, too light.

Feathering
The softening of an edge of a selection.

Fill layer
A type of layer that contains a solid colour, a pattern, or a gradient as an interchangeable attribute. (See also layer and adjustment layer).



Filters
Options to alter the look of an image, for instance, to make it look like a mosaic, add unique lighting, apply distortions, and so on.

Flattening
Merging all visible layers into the Background layer to reduce file size.

Font
A set of letters, numbers, punctuation marks, and symbols that share a common weight, width, and style.

48-bit RGB colour
A high-bit image mode that can contain thousands of colours per channel. Photoshop supports 8-bit or 16-bits per colour channel, so an RGB image can be a total of 24-bit or 48-bit, depending on the bit depth per channel.

Gamma adjustment
The contrast resulting from darkening or lightening the mid-tones of an image.

Gamut
The range of colour that a device can reproduce.

Gaussian blur
A softening effect applied through a bell-shaped distribution of tones and colours.

GIF
Graphic Image File Format. A file format suitable for images that contain line art, large areas of a single colour, and text. Web animations are done with images in GIF format.

Gradient
Any of several methods for achieving a smooth transition between two adjacent colours, including black and white.

Greyscale
A single-channel image that includes only black, white, and shades of grey. Depending on the bit depth, greyscale images can reproduce various shades of grey.

Halftone
A monochrome image made up of variably sized dots simulating the shades of grey in a photograph. It is used for reproducing photographs on PostScript printers and printing presses.

Highlight and shadow
The lightest and darkest colours in an image.

Histogram
A bar chart showing the distribution of the pixel values in a digital image.

Hue
The colour reflected from or transmitted through an object. In common use, hue is the property that allows a colour to be distinguished as red, blue, yellow, and so on.

ICC
International Colour Consortium. ICC device profiles are the industry standard for reproducing colours accurately across devices such as scanners, monitors, and printers.

Image cache
A section of hard disk space used as virtual memory. The image cache speeds the on-screen redraw of high-resolution images.

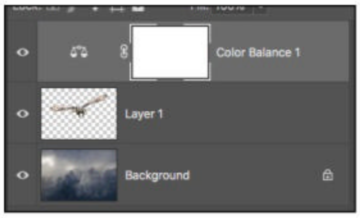
Image mode
The colour mode of an image, such as Greyscale or RGB.

Indexed colour
A colour that is rendered by using a pixel value as an index to a panel of 256 or fewer colours.

JPEG
Joint Photographic Experts Group. A committee of experts that develops algorithms for compressing computer image files. Also, any graphic file to which a JPEG algorithm is applied. JPEG is the format generally used to share photographs over the web.

JPEG compression
A lossy compression technique that reduces image data and file size.

Layer
A mechanism for overlaying and combining multiple images. Layers are like transparent sheets of glass that you can stack and rearrange.



Layer group
A collection of layers saved with a Photoshop image.

Layer mask
A protected area in an adjustment layer. Areas below the mask cannot be edited.

Levels
Functionality for adjusting colour and tone. With a Levels adjustment, you can set shadow and highlight values to use a full tonal range, adjust middle tones only, correct colour casts, and so on.

Locked layer
A layer in the Layers panel that has the lock icon applied. No changes can be made to a locked layer. A Background layer is always locked.

Lossless compression
An image-compression technique that prevents image degradation caused by data loss. Lossless techniques usually use lower compression ratios than lossy techniques.

Lossy compression
An image-compression technique using compression ratios that result in the loss of some image data.

Matting
A method for simulating transparency in images displayed on web pages. When transparency is not supported, you can specify a matte colour that matches the background to simulate transparency.

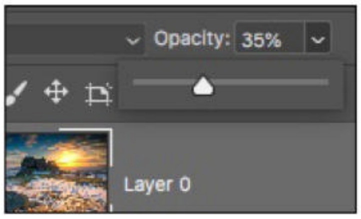
Midtone
An area that falls between the brightest highlight and the darkest shadow.

Moiré
A wavy striped pattern in an image, resembling the pattern of watered silk. Moiré can be an artefact caused by a camera's inability to capture the detail in an image.

Monitor resolution
The resolution of a monitor, described in pixel dimensions. The size of an image displayed on-screen depends on the pixel dimensions of the image, the size of the monitor, and the monitor resolution.

Noise
An artefact caused by interference or camera error. Noise is often seen as stray pixels of unexpected colour or a generally "grainy" appearance. Certain compression techniques can amplify noise.

Opacity
The extent to which something blocks light. You can change the opacity of layers, filters, and effects so that more (or less) of the underlying image shows through.


Opacity: 35%

Panorama
A broad view of a subject, usually a landscape, made by overlapping individual shots as they are taken and then merging them to form one image.

PDF
Portable Document Format. An Adobe file format that captures the elements of a printed document, including graphics and photos, as an electronic image. You can search, navigate, print, and e-mail PDF documents.

Perspective
The angle or level from which a photograph is taken; the camera-eye view.

Pixel
The basic, rectangular unit of data that a digital image consists of. The edges of pixels can produce a saw-tooth pattern unless anti-aliasing is used.

Pixel dimensions
The number of pixels along the width and height of an image. This is a measure of the amount of image data in the photo, not its physical size when printed or displayed on a monitor.

Pixels per inch (ppi)
A measure of image resolution stored in a camera or computer file. High ppi settings produce photographs with fine detail and large file size. (See also dots per inch (dpi).)

PostScript
A language developed by Adobe that describes the appearance of text, graphic shapes, and sampled images on printed or displayed pages.

Printer profiles
Profiles that describe how printers reproduce colours.

Progressive scan
A process of displaying images on-screen that draws 60 complete frames of video from left to right every second. Progressive scan creates a cleaner, clearer picture than interlaced video.

PSD
The native uncompressed file format of Adobe Photoshop, based on the TIFF standard.

Quick mask
A mask channel created in Quick Mask mode.

Red eye
The reflection of the camera flash from the retina of a photographed subject, resulting in a red dot in the subject's eye. You can eliminate it automatically when you import images or by using the Red Eye Removal tool.

Rendering
Converting a vector layer such as a shape layer or a text layer into a normal layer.

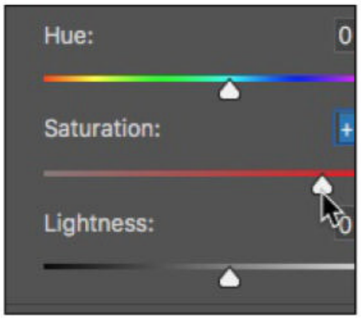
Resample
To change the resolution of an image by changing its pixel dimensions. Downsampling is decreasing the number of pixels, and resampling up (or upsampling) is increasing the number.

Resolution
A measure of the clarity and sharpness of an image. In digital images, it is measured in pixels per inch.

RGB
A model for representing colours on a computer display. Red, green, and blue (RGB) are combined in different proportions to represent any colour. The RGB model can represent 256 x 256 x 256 colours.

Sample
To select a colour with the eyedropper in order to use it with a drawing or painting tool.

Saturation
The purity, or strength, of a colour. A fully saturated colour contains no grey. Saturation controls make colours more vivid (less black or white added) or more muted (more black or white added).



Selection
A part of an image selected for manipulation of any kind, duplication in a layer, colour correction, deletion, rotation, and so on. The selection consists of all the pixels, fully or partially selected, contained within the selection boundary.

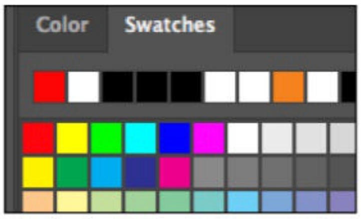
Sharpening
In photo-editing programs, any functionality that enhances the details at the edges of photographed objects and people. Sharpening is often applied as part of in-camera processing as well, although no sharpening is applied to camera raw file images.

Skewing
Deviation of the content of an image from a vertical or horizontal axis. Skewing can be a camera artefact or an intentionally applied effect.

Smoothing
A technique for averaging the values of neighbouring pixels to reduce contrast and create a soft, blurry effect.

Stroke
(1) An outline around an image or part of an image created with the Stroke command or with a drawing, painting, or selection tool. (2) The characteristics of the lines created with one of the painting or drawing tools, especially brushes.

Swatches
Preset colours that you can choose from in the Colour Swatches panel.



TIFF
Tagged Image File Format. A digital image format widely used for images that are to be printed or published. TIFF images can be compressed losslessly.

Transform
To scale, shrink, enlarge, skew, distort, rotate, or change the perspective of a layer, selection, or shape.

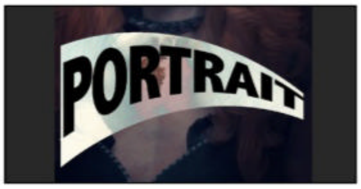
Transparency
In digital photography, the functionality that supports transparent areas in an image or image layer. Certain image formats do not support transparency.

Unsharp mask
A technique that sharpens details in an image by increasing the contrast between light and dark areas. (The name originates from traditional photography, where contrast is increased by adding a slightly blurred negative over the original.)

Vector graphics
Lines, shapes, and other graphic image components stored in a format that incorporates geometric formulas for rendering the image elements. For this reason, the graphics scale without degradation of image quality, and there are no jagged lines in the output. Adobe Illustrator is a vector graphics program.

Vignetting
A darkening of the edges of an image.

Warping
A distortion of an image, often text, to conform to a variety of shapes. For instance, a line of text can be warped in the shape of an arc or wave.



White balance
A function that compensates for the different rendering of identical colours under different sources of light: incandescent, fluorescent, sunlight, and so on.

White point
A reference point used to represent white. This reference point is used to calculate all other colours in the image.

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